Annual Report on
Survey and Settlement Operations
Bihar and Orissa
1911-12 & 1913-14 & 1915-16 &
1917-18

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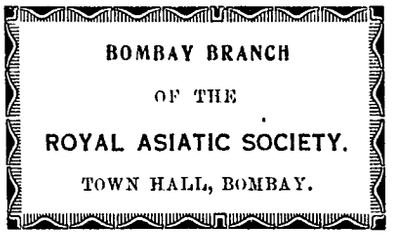

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ANNUAL REPORTS

ON

SURVEY AND SETTLEMENT OPERATIONS

BY THE

DIRECTOR OF LAND RECORDS, BIHAR AND ORISSA,

AND THE

DIRECTOR OF SURVEYS, BIHAR AND ORISSA

FOR THE

133092

YEAR ENDING 30TH SEPTEMBER, 1912.

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[Maximum limit, 30 pages.]

REPORT

OF THE

DIRECTOR OF LAND RECORDS, BIHAR AND ORISSA.

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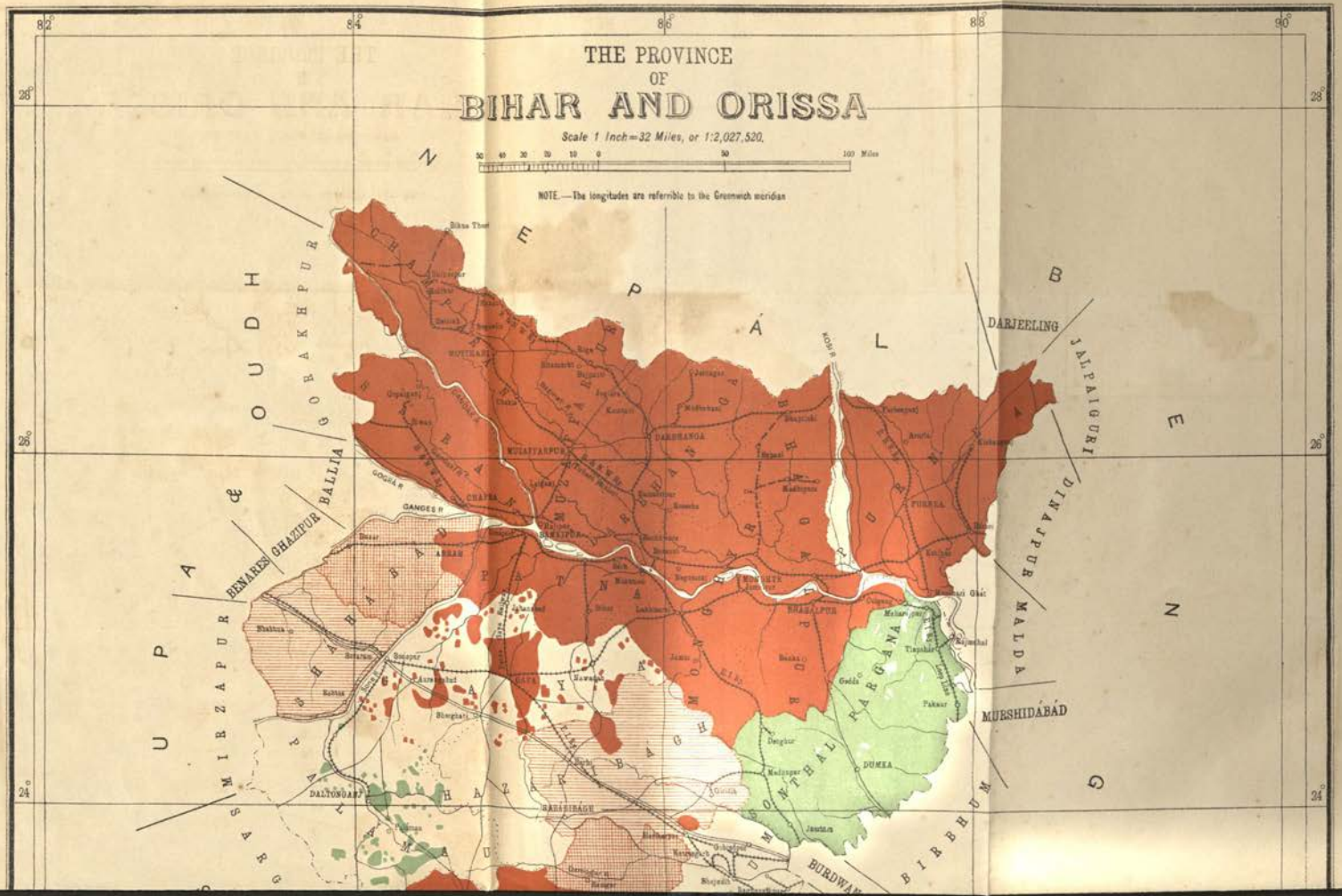
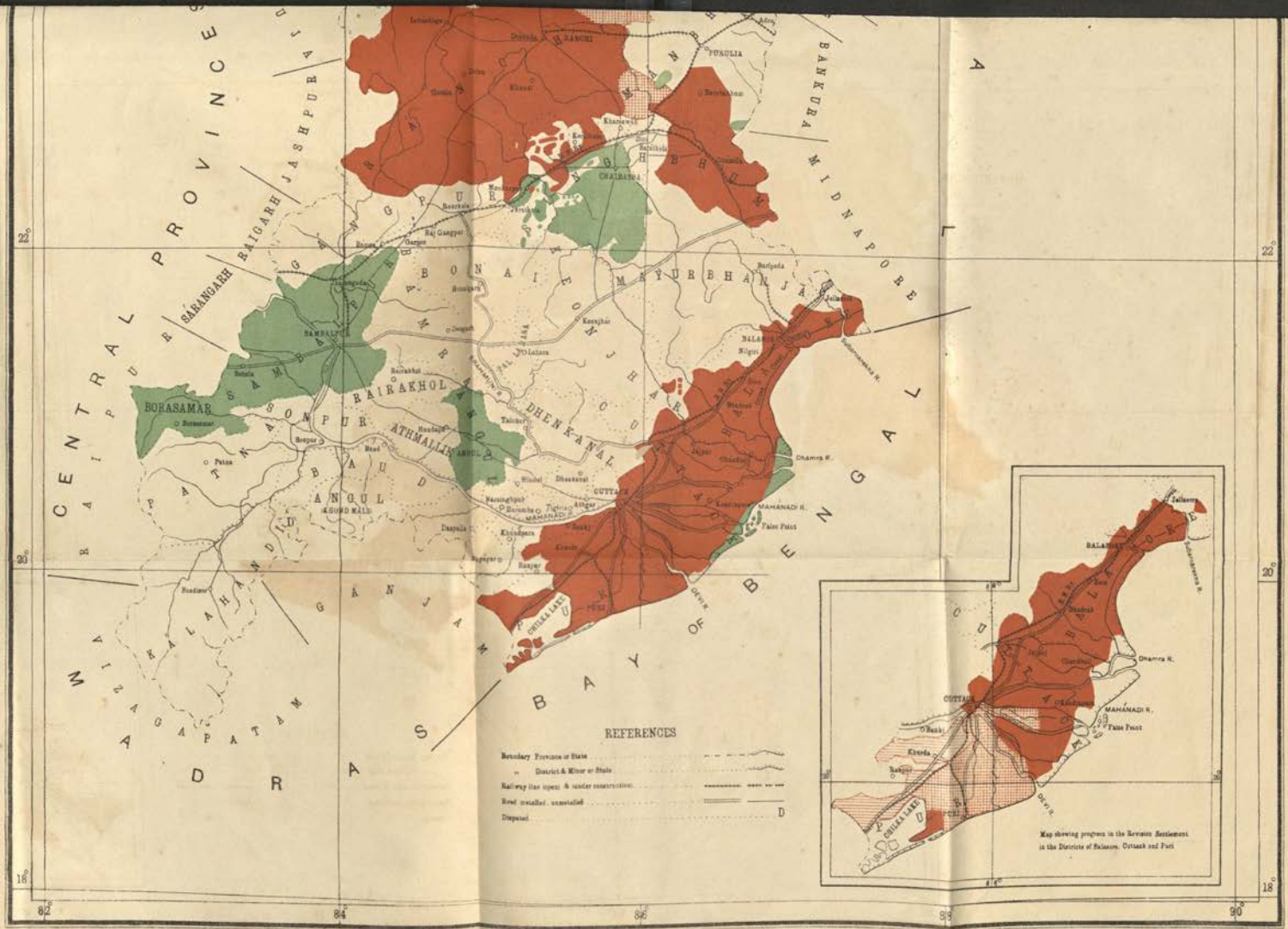
CORRIGENDA SLIP.

Page 2— Para. 6 Line 2	...	...	*After* "Singhbhum" put a bracket ")".
Page 10— Para. 45 Line 2	...	...	*For* "quadrilateral" *read* "quadrilaterals."
Page 11— Para. 46 Last line	...	...	*Delete* "to" between "and" and "Re. 1-5."
Page 12— Heading under para. 53	...	...	*For* "PARGANA" *read* "PARGANAS."
Page 15— Para. 63 Line 4	...	...	*For* "October 1912" *read* "December 1911."
Appendix III— Part C Page viii Under "*Cuttack*"— Against "Do. 108" Col. 7	...		*For* "8" *read* "10."
Appendix IV— Page x Against "Shahabad" Col. 13	...		*For* "1,67,216" *read* "1,65,726."

SETTLEMENT MAP





REFERENCES

Boundary Province or State
" District & Minor or State
Railway line open & under construction
Road metalled . unmetalled
Disposal D

Map showing progress in the Revenue Settlement in the Districts of Balasore, Cuttack and Puri

Area the records in which were finally published under the Bengal and Orissa Nagpur Tenancy Acts prior to the year ending 30th September, 1912

Area the records of which have been finally published or completed under the Bengal and Orissa Nagpur Tenancy Acts during the year ending 30th September 1913

Area in which the preparation of settlement records under the Bengal and Orissa Nagpur Tenancy Acts was in progress but not completed during the year ending 30th September, 1913

Area the records of which were finally published under other laws prior to the year ending 30th September, 1912

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DEPARTMENT OF LAND RECORDS, BIHAR AND ORISSA.

No. 4007.

FROM J. REID, ESQ., I.C.S.,
Director of the Department of Land Records, Bihar and Orissa,

TO THE SECRETARY TO THE BOARD OF REVENUE, BIHAR AND ORISSA,
LAND REVENUE DEPARTMENT

Dated Ranchi, the 14th December 1912.

SIR,

I HAVE the honour to submit the following report on the survey and settlement operations conducted under the supervision of this Department during the year ending the 30th September, 1912.

CHAPTER I.

GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operations.

2. Survey and settlement operations were in progress during the year in 10 districts of the Province. The area cadastrally surveyed during the year was 2,662 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 4,353 square miles, attested in 4,122 square miles, and finally published in 4,907 square miles. The rents of 48,531 tenants were settled. The expenditure of the year amounted to Rs. 11,35,411.

Total area settled in the Province up to 30th September 1912.

3. The total area for which a record-of-rights has now been completed under the control of the Department is 57,417 square miles. Of this 3,064 square miles (excluding Orissa revision work) were completed during the year under report. Progress during the last twenty-six years has averaged 2,209 square miles a year.

As in last year's report an additional statement (Appendix XII) is appended showing by Divisions the total area (*a*) completed in each district in survey and record or settlement under the Regulations, (*b*) covered by topographical or forest surveys, and (*c*) remaining to be dealt with. They do not, however, agree with the figures mentioned above, as the figures in Appendix XII include areas which have been surveyed and settled under the supervision of officers not working under the control of the Director of Land Records. The figures, so far as available, show that out of 83,592 square miles of the Province 20,707 square miles remain to be dealt with.

Future programme.

4. The revision of the record-of-rights in Bihar was postponed till October, 1913, under Government order No. 383 R.(A)., dated 15th May, 1912. Detailed proposals for carrying out the operations were framed during the year under report, and the orders of the Government of India on the scheme are awaited. The current settlement of the Kolhan Government estate, in the district of

Singhbhum, will expire on the 31st March, 1917, and a resettlement of the estate was sanctioned in Government Order No. $\frac{5097 \text{ R. (A)}}{18-103}$, dated the 28th October, 1912. The inception of the survey and settlement operations in the district of Palamau was also sanctioned during the year in the Government of India's Order No. 866—263—2, dated the 19th July, 1912.

Settlement staff.

5. The largest number of Settlement and Assistant Settlement Officers employed during the field season was 4 and 95, respectively.

The Government of India having sanctioned an addition of 11 Deputy Collectors and 19 Sub-Deputy Collectors to the cadres of the Provincial and Subordinate Executive Services for carrying out the survey and settlement programme of the Province of Bengal, the additional staff was divided between that province and Bihar and Orissa, when the latter was created in April, 1912. Seven Deputy Collectors and thirteen Sub-Deputy Collectors were allotted as the proportionate share of this Province.

Final reports.

6. The final reports on the operations in Bhagalpur, Ranchi, Dhalbhum estate (Singhbhum and on the third programme of survey and settlement work in the Sonthal Parganas were submitted during the year. The final report for the Bichitrapur Government estate in Balasore was submitted to the Commissioner by the Settlement Officer of Orissa, who carried out the operations in conjunction with the Revision operations.

Maintenance of Jursdiction lists and maps.

7. Ten proposals for alteration in thana and police station jurisdictions were received during the year for examination. In the majority of them, defects were noticed which necessitated some modifications in the original proposals. The jurisdiction notifications issued were 14 in number, of which three only related to changes both in thana and police station jurisdictions. Necessary action for the correction of maps and lists was taken in respect of all the notifications.

Training of junior Civilians.

8. Eleven officers underwent training in survey and settlement work during the year. Of these, Messrs. Williams, Tallents, Saunders, Tuckey, Toplis and Hoernle received instruction in Shahabad, and Messrs. Bingemann, Bartley, Donovan, Rau and Johnston in Chota Nagpur.

Training of Munsifs.

9. Six Munsifs, who had completed the period of 18 months' deputation to survey and settlement work, reverted to general duty in April, 1912. Two of these officers received their training under the Settlement Officer of Chota Nagpur and four under the Settlement Officer of Bihar. The Settlement Officer of Chota Nagpur reports that the Munsifs, who were deputed to Chota Nagpur, failed to reach the desired standard, and that they were considerably inferior to the average Deputy Collector in ability. Of the six Munsifs, who were deputed in October, 1911, two proved unequal to the strain of survey and settlement work, and reverted to the Judicial line within three months of the date of joining.

Training of district kanungos.

10. Two district kanungos from the Patna Division and one from the Chota Nagpur Division received training in survey and settlement work under the Settlement Officer of Shahabad and the Settlement Officer of Chota Nagpur, respectively.

Departmental Rules.

11. Revised rules 105 to 140 of Chapter VI of the Bengal Settlement Manual relating to the accounts and financial control of major settlements were sanctioned during the year. Of the rules dealing with the internal working of the Department framed or issued during the year, the more important were the Bihar Khasra Section Rules and the Rules for the guidance of Assistant Settlement Officers employed in disposing of applications under section 40 of the Bengal Tenancy Act in Bihar. The Attestation Rules for the settlement of the Khurda Government estate were sanctioned since the close of the year.

Cess Revaluation work.

12. A Cess Revaluation Roll was prepared in Hazaribagh district under Chapter II A of the Bengal Cess Act simultaneously with attestation as in the previous year. The expenditure under this head during the last two seasons in an area of 3,287 square miles was Rs. 13,550, which gives an incidence of Rs. 4·12 per square mile.

The procedure followed at present appears to involve continuous reduplication of work, and the whole system is undoubtedly expensive. I am consulting the Deputy Commissioner of Hazaribagh and the Settlement Officer of Chota Nagpur as to whether it should not be dropped, and the Cess Revaluation done after the completion of the record and not *pari passu* with its preparation.

Agrarian legislation for Orissa.

13. The Orissa Tenancy Bill referred to in paragraph 13 of the previous year's report was passed, after considerable debate, through the Bengal Legislative Council on the 27th March, 1912. His Excellency the Governor-General, however, was pleased to withhold his assent from the measure, leaving it to the Government of Bihar and Orissa to introduce the Bill again in the Legislative Council of this province, should it be deemed necessary to enact a special measure to regulate the relations of landlord and tenant in Orissa.

Utilization of Land Records.

14. Extracts from the Annual Reports received from the District Officers continue to confirm the opinions expressed in previous years in the Annual Reports of this department about the utility of the survey and settlement records in almost all branches of the administration. In criminal cases concerning land, in preparing sketches of the scenes of crime, in partition and land acquisition proceedings, in making chaukidari assessments and in almost every branch of revenue work, the records, it is reported, have been constantly utilized. While the reports from the Collectors show that the records are generally consulted, it is to be feared, however, that full use is not always made by inexperienced officers of the information which they contain. There appears to be also a tendency to reduplicate work, and to do over again work that has been already done by the Settlement Department. For instance, in Ranchi district a map was prepared in a Land Acquisition proceeding of an area which had been already surveyed a couple of years before, and of which, of course, an up-to-date map was already available. Several cases also came to my notice in which adequate and intelligent use was not made of the statistical registers in Land Acquisition cases for the purpose of estimating land values, and determining the value of the landlords' and tenants' interests.

CHAPTER II.

[*See* Appendices I to VI.]

SETTLEMENTS OF LAND REVENUE.

Bichitrapur Estate in Balasore.

Area, 5·56 square miles; 6 villages, 1,092 tenants; 2,525 plots.

15. *Work done and conclusion of the operations.*—The objections under section 104 E filed in respect of the rent-roll were heard and disposed of, and the rent-roll was confirmed by the Settlement Officer. Final publication was completed, and the final report was submitted to the Commissioner, who confirmed the settlement. As a result of these operations, the cultivated area and rental have risen from 2,267 acres and Rs 4,559 to 2,468 acres and Rs. 5,273, respectively.

Khurda Government Estate in Puri.

Area 883 square miles; 1,377 villages; 224,221 holdings; 812,940 plots.

16. *General.*—The Khurda Killa or Estate consists of 1,552 villages with an area of 1,012·75 square miles. The present report is concerned with the villages held *khas* only—1,377 in number. The record-of-rights of the remaining 175 villages has been brought up to date in the course of the general Revision settlement in Orissa.

The present resettlement operations in the Government estate were undertaken under Bengal Government notification No. 1808 T.R., dated the

16th October, 1911. By successive *milan khasra* operations (maintenance of records), the records of the estate had been revised up to the cold weather of 1909-10. As the period of rent settlement expired in October, 1912, a resettlement became necessary. It was decided that the Settlement Officer should merely collect mutation statements from the village sarbarakars of all changes that had occurred since 1909-10, and incorporate them in the records after adequate check, and that, in addition, he should also make a complete survey of the areas reclaimed throughout the estate since last settlement. Of the 1,377 villages forming the Government estate, 3 are *lakhiraj* villages and 9 are entire jungle mauzas covered by reserved forest. Reclamation or *milan khasra* enquiries were not, therefore, made in these 12 villages.

17. *Staff.*—Babu Sudarshan Das, Deputy Collector, who worked under the supervision of the Collector, was the Settlement Officer in charge of the operations.

18. *Programme.*—The programme consisted of (1) survey and examination of the mapping of all lands reclaimed since last settlement; (2) enquiry into encroachments not covered by leases; (3) the preparation of a record of all changes due to inheritance, transfer, etc., since the last *milan khasra*; (4) assessment of new cultivation; (5) fair-copying of the maintained khatians for attestation; and (6) preparation of rent-schedules for field work. With the exception of the last item, the programme was fully carried out. The schedules will be prepared in camp this field season.

19. As a result of the present proceedings, the number of holdings has risen from 221,559 to 224,221, and the number of plots from 809,586 to 812,940, that is, by about 1 per cent. in both cases. Out of a total area of 25,990 acres, which changed hands during the last two years, 70 per cent. passed in the ordinary course of inheritance, 27 per cent. by sale, 2 per cent. by partition, and 1 per cent. by gift or otherwise.

CHAPTER III.

[*See* Appendices I to VI.]

PERMANENTLY-SETTLED ESTATES.

Bihar Settlement.

20. *Staff and extent of operations.*—Mr. P. W. Murphy, I.C.S., was Settlement Officer of Bhagalpur, South Monghyr and Patna up to 1st April, when Mr. J. A. Hubback, I.C.S., was placed in charge of the work in all the South Bihar districts in which settlement operations were then going on. The late Mr. P. S. Shettle, I.C.S., and Mr. A. B. Duncan, I.C.S., were in subordinate charge for about 7 and 11 months, respectively. Mr. J. H. Murphy occupied the post of Professional Adviser and also worked as Assistant Settlement Officer at the cadastral head-quarters office throughout the year. The staff of Assistant Settlement Officers consisted of 9 Deputy Collectors, 9 Sub-Deputy Collectors, 6 Munsifs, and 3 non-gazetted officers, during the field season; in recess, the number of Assistant Settlement Officers employed dropped to 16.

Patna District.

Area, 1942·80 square miles; 2,510 villages; 527,810 tenancies; 34,13,654 plots.

21. *Programme and progress.*—The year's programme consisted of the disposal of case-work under sections 105, 106 and 40 of the Bengal Tenancy Act, together with the disposal of appeals under the last section.

All pending section 105 cases, including those instituted during the year, were disposed of, except six which were, however, ready for judgment at the end of the year. The enhancement allowed was moderate—under 8 per

cent. Only 10 cases under section 106 remained over to be decided. All cases under section 40, except 51, were disposed of. Most of the remainder will have to be struck off, owing to an injunction of the Civil Court restraining the applicants from proceeding. Out of 1,175 applications dealt with in the year, commutation was allowed in 1,056, and a rental of Rs. 40,550 was fixed for 4,514 acres.

The Settlement Officer upheld the original order in about 80 per cent. of the appeals against orders passed under section 40. The results of appeals show that applications and suits were tried carefully in the lower Courts. There were 77 "second" appeals preferred to the Commissioner, who upheld the Settlement Officer's decision in 43 cases, modified it in 23, and allowed commutation in one case in which the Settlement Officer had refused it. Ten appeals were pending at the end of the year.

All appeals under section 105 in the Special Judge's Court were disposed of, except one. The cases presented no particular points of interest.

22. In one important appeal against a decision under section 106, the question of the legality of the realization known as "dahiak" was raised. As reported in the previous year's report, Mr. J. F. W. James, I.C.S., tried the original suits, and found "dahiak" to be an *abwab*. Mr. F. R. Roe, I.C.S., the Special Judge, held, however, on appeal, that it was not the business of Settlement Officers at any stage to decide the question of the legality of any particular realizations, but that their sole duty was to record existing conditions. A record of rents prepared on this system would, however, fail in one of its chief objects; it has always been considered one of the primary duties of the Settlement Officers to scrutinize the legality of enhancements and all sorts of miscellaneous payments, and then to record a decision as to the amount lawfully recoverable from the tenant. If the procedure outlined in the learned Judge's judgment were given effect to, it would detract enormously from the utility of settlement operations as a solution of agrarian disputes, and there is little doubt that the framers of the Bengal Tenancy Act never intended such a result. It seems also that the learned Judge's view of the existing law is not correct. In this connection the Settlement Officer, Mr. Hubback, observes:—

> It appears that the Special Judge has overlooked the provisions of section 102(*e*), which direct that the record shall show the rent payable at the time the record-of-rights is being prepared, and as rent is defined in section 3 (*5*) as "whatever is lawfully payable or deliverable in money or kind," there seems to be no doubt that a Settlement Officer cannot frame a record-of-rights without enquiring into the legality of the demands made for rent even where these have actually been satisfied. He is bound by the provisions of sections 29 and 74 to exclude illegal enhancements and *abwabs* when these come to his notice. If the Settlement Officer is bound to enquire what is lawfully payable as rent in framing the record-of-rights, he is equally bound to take up and decide disputes on this point under section 106.

23. *Recovery.*—The recovery of the whole of the computed demand amounting to Rs. 8,28,509 was completed during the year, except a small balance of Rs. 17.

Shahabad District.

Area, 4,171 square miles; 6,025 villages.

Survey.

24. *Programme.*—In addition to certain urban areas, the programme consisted of (1) the cadastral survey of 781 square miles in thanas Sasaram and Dehri; (2) the topographical survey, with preparation of records and statistics of .53 square miles of the bed of the Sone river, of which 77 square miles have been provisionally allotted to Shahabad district; and (3) the mapping of the southern boundaries of eight villages of Bhabhua thana left over from the previous year. The whole programme was completed.

25. *Survey and khanapuri.*—Out of the 781 square miles of cadastral survey, 359 square miles consisted of hilly country, a continuation of the

Kaimaur plateau. Cultivation was sparse. The total number of plots khanapuried was 444,929 only, which gives an incidence of 570 plots to the square mile. The survey check amounted to 3·04 linear miles per square mile, while 18·43 per cent. of the plots were checked at khanapuri. The percentage of check in both branches was adequate.

26. *Municipalities.*—The survey of the Dumraon Municipality on the 64-inch scale undertaken in the previous year at the request and expense of the Municipal Commissioners was completed and a khasra of occupancy prepared. The survey of the Sasaram Municipality was carried out in the ordinary course without any detail survey. The cadastral survey and khanapuri of a portion of the Jagdispur Municipality surveyed in block in 1909-10 was also carried out for purposes of the settlement of fair rents and revenue, as the block is situated in a temporarily-settled estate.

27. *Boundary and internal disputes.*—The boundary disputes were of a trifling character, except a few relating to large tracts of rock and jungle in the hilly area. The fall in the incidence of internal disputes continued; they averaged 19 to the square mile against 27 and 40 in the previous two years. Many of the disputes were between landlords and tenants as to the possession of lands, the former claiming them as *zirat*, and the latter as their raiyati. The Settlement Officer observes that the failure of landlords to give proper rent receipts is likely to be a fruitful source of trouble. Disputes on the whole were, however, very much less numerous than in most parts of South Bihar, and this is mainly due to the very poor quality of much of the land, which is hardly worth fighting for.

Settlement.

28. *Programme.*—The main programme consisted of the attestation, draft publication, and disposal of objections under section 105A in an area of 1,551 square miles in thanas Bhabhua, Mohania and Kharghar, and the completion of the records of those thanas up to the stage of final publication; the settlement of fair rents in the Government and temporarily-settled estates in the six northern thanas Arrah, Shahpur, Piro, Buxar, Dumraon and Bikramganj; the completion and final publication of some of the records of those thanas and the disposal of section 105, section 106, and section 40 cases in the same thanas, and the computation of costs. The programme was completed, with the exception of a portion of the rent settlement work in the Government and temporarily-settled estates and of a considerable balance of case work. Final publication and computation of costs also had not been completed at the close of the year.

29. *Attestation.*—Ten officers were employed on attestation. Disputes were not numerous. The only question of importance was the position of certain tenure-holders who claimed to be *mukarraridars*. The ancestors of these men were given a tract to reclaim and develop; they induced cultivators to settle, and they paid to the landlord the rents which they used to collect from their tenants. Even now most of them collect less rent than they actually pay to the landlord; they make their profit out of the lands in their own cultivation. In some cases they simply pay over to the landlord the rents due from the raiyats, and enjoy their *bakasht* lands rent-free by way of remuneration for the work of collection. It was clear, however, that in most cases their rents had been enhanced, and it was therefore impossible to presume fixity of rent. It was accordingly decided to record them as permanent tenure-holders, holding at a rent which is enhanceable. In dealing with applications under section 105 for settlement of fair rents, care should be taken to fully consider the previous history of these tenures and to see that no enhancements are allowed without adequate consideration of their history.

30. The amount of rent legally payable was the main item of dispute, and the determination of the issue was the more difficult, as it was found that practically all landlords, including the Maharaja of Benares, a High Court Judge and the Court of Wards, had omitted to give proper rent receipts to their raiyats. Adequate notice of these omissions was taken by the Settlement Officer,

and cases of wholesale neglect were reported to the Collector for necessary action under section 58 of the Bengal Tenancy Act.

31. The Settlement Officer reports several cases from which it appears that the landlords sometimes exploit the Criminal Courts with the object of forcing their tenants to agree to enhancements, or for other similar purposes. For instance, one landlord in thana Bhabhua was found to have instituted a criminal case against a tenant, and to have succeeded in obtaining the latter's consent to pay an enhanced rent, while another landlord, who was anxious to introduce the *danabandi** system in his estate, is reported to have brought a a criminal case against one of the refractory raiyats in order to frighten the others into acquiescence.

Another matter of importance is the use which parties sometimes make of the Magisterial Courts, during the pendency of settlement proceedings, to secure a reversal of an adverse decision. For instance, in a dispute relating to village Daridih in thana Bhabhua, the raiyats were found by the khanapuri officer to be in possession; the landlord then applied to the Subdivisional Officer of Bhabhua for a declaration of his possession under section 145 of the Criminal Procedure Code. The proceedings, which appear to have been instituted, were stayed pending the decision at attestation, which was again in favour of the raiyats. The proceedings in the Magisterial Court under section 145 were, however, now renewed; the case was sent for enquiry to an Honorary Magistrate, who happened to be a landlord of a neighbouring village. He disagreed with the previous findings; the Subdivisional Officer accepted his opinion, and declared the landlord to be in possession.

Apart from the merits of the dispute, it appears to be clear that the proceedings ought not have been instituted in the Criminal Courts at all. The object of the provisions of section 145 is to provide a summary procedure for a declaration of possession, in order to prevent serious disturbance or rioting which sometimes occurs when disputes about possession of land are left unsettled; but, it was certainly not the intention of the Legislature that the Magistrate should sit in judgment on recent decisions of other competent authorities on the same question; and, unless the judgment of the Assistant Settlement Officers was perverse, and this is not alleged, it was, I think, the duty of the Criminal Courts to uphold it, leaving it to the other party to seek a remedy in the Civil Courts. The Magistrate's action has also not tended to advance the settlement of the case. He has merely shifted the burden of proof, as the raiyats, and not the landlord, will now be obliged to bring a suit; nor does it appear how the chances of rioting have been minimized by putting the landlord in possession rather than the tenants. As a matter of policy, the proper course was, it appears to me, to have upheld the decision of the Assistant Settlement Officer; no proceedings ought to have been necessary, and a warning to the landlord that he would be held responsible if a riot occurred would, no doubt, have been all that was required.

In this connection the Settlement Officer justly observes:—

> The settlement procedure provides for the investigation of such disputes at three separate stages, viz., khanapuri, attestation and disposal of objections, under section 103 A, before the record is finally framed. Frequently the Settlement Officer or the Assistant Settlement Officer in charge himself investigates a case or orders a re-enquiry by another officer. It would seem unnecessary that the parties should be encouraged to seek for a simultaneous investigation by a different authority. If the Civil Courts cannot investigate claims regarding rent and status during the progress of settlement operations, it is difficult to see why the Criminal Courts should investigate claims regarding possession. The Magistrate is really only concerned to preserve the peace, and that can be done by binding down the party against whom the Settlement Officer's finding goes, until he has established his claim at a later stage of the operations or his title in the Civil Courts.

32. Questions relating to status were of little importance as compared with previous years. The area under attestation lies wholly outside the true *guzashta* (fixed rent) area, although the term is often used to connote the raiyats' ancestral holding. A few villages contained holdings known as *Sanbarhu*, *i.e.*, tenancies consisting of newly-reclaimed land for which a

* Assessment by appraisement of the crop before it is cut.

progressive rent is payable for the first few years. The holders of these tenancies enjoy, according to local usage, occupancy rights in the land from the inception of the tenancy.

33. Most of the tenancies are held on money rents, but produce rents are fairly common. The more important landlords realize produce rents on the *danabandi* system; and the smaller ones mostly on the *batai** system. The landlord's share never exceeds one-half, and a common division is nine-sixteenths to the raiyat and seven-sixteenths to the landlord.

34. *Relations of landlords and tenants.*—The relations of landlords and tenants are fairly satisfactory. The tenants, it is reported, however, who are usually men of low caste, have not always the courage to stand up for their rights; in some areas also the land is poor and cultivators are difficult to obtain. Some ill-feeling was found to prevail among the tenantry of the Benares Raj, the most important estate in the tract. The lands of the estate were all measured three or four years ago, and extra rent was assessed in many cases for excess area, although no remissions were given where the area was found to be in defect. Lands really held rent-free were also shown as forming part of the raiyat's rent-paying holdings. When disputes arose before the Attestation officers, proofs were not usually forthcoming to show that realizations had been actually made according to the *jamabandis*. Much of the produce-rent had also been converted into cash-rent, and the question was raised whether a Revenue Officer was empowered to look into, and, if necessary, reject, as inequitable, commutations of the kind. It was held, however, that there was no authority for rejecting a compromise of this character on the ground of unfairness.

35. *Objections under section 103A.*—The number of institutions fell to less than a fourth of the number filed in the previous year in about the same area. About 16 per cent. of the objections were allowed. The bulk of them related to disputes regarding rent, possession of land, and status.

36. *Settlement of fair rents in Government estates and temporarily-settled estates.*—The area of the Government and temporarily-settled estates in the six northern thanas is about 74,000 acres. The principal feature of the work has been the attempt to ascertain what proportion the present rents bear to the value of the gross produce before deciding to impose the full enhancement on the ground of rise in prices. For this purpose, crop-cutting experiments were conducted, and the value of the crops in the villages concerned was estimated by actual inspection. The average money value of the gross produce was then calculated, and one-fifth of this, after making deductions in canal irrigated areas, was taken as the guiding rate for the individual estate. If the average incidence of rent was found to exceed this, it was thought inequitable to enhance the rents even though prices have risen. If the average incidence did not reach the "guiding" rate, an enhancement was allowed, with the "guiding" rate as a maximum. In cases where the cultivators derive benefit from State irrigation, in calculating the gross produce the increase in production due to such irrigation was excluded. Thus, where the irrigation rate paid by the cultivator is Re. 1-14 per acre, three times this amount was deducted from the value of the actual gross produce, and rent enhancement was allowed only up to the limit of one-fifth of this latter sum. Three times the irrigation rate is taken to include the rate itself, estimated profit derived by the raiyat from irrigation, and cost of labour involved in bringing the water to the fields. The practical effect of the rule was to exempt the raiyat altogether from any liability to enhancement of rent on account of the increased production.

The figures for a little more than one-fifth of the tenancies, for which rents have actually been confirmed, show that the enhancement allowed has been slightly less than 1 anna in the rupee, while the rise in prices would, on the whole, have justified an enhancement of annas 2 pies 6. It may perhaps be asked, why Government should not take the full enhancement, which private landlords would, in similar circumstances, demand. Private landlords do not, however, invariably press for the full enhancement. In many cases, they do not apply for enhancement at all, while, in others, they

* Equal division of crop between landlord and tenant after portion of expenses of cultivation has been paid.

compromise for considerably less than the full amount. The actual increase in the rental of a whole district which is ordinarily given under section 105 is, in point of fact, insignificant.

It is expected that the whole area will show an increase of rental equivalent to about 1 anna in the rupee.

37. *Settlement of rents in zamindari areas.*—An enormous number of applications for settlement of fair rents under section 105 were filed, no less than 50,441 tenants having been sued for enhancements in the six northern thanas. The total number of tenancies in these thanas is 449,392, and of these probably not more than 300,000 are tenancies held by settled raiyats whose rents are usually sought to be raised. The landlords have, therefore, sued about one in every six raiyats. Down to the end of the year, about two-fifths of the cases were disposed of, and an average increase of slightly more than 1 anna in the rupee was allowed. In some cases, the equity of enhancing rents, which were considered to be already sufficiently high, was considered, and in some instances enhancements were altogether disallowed on this ground, while, in others, considerably less than the maximum amount permitted by law on the ground of rise in prices was sanctioned.

South Monghyr.

2,285 square miles; 2,017 villages; 318,877 tenants; 2,102,226 plots.

38. *Programme.*—The most important item of work that remained to be disposed of from the preceding year was the conclusion of the proceedings under section 112 of the Bengal Tenancy Act in the villages owned by Babu Sukan Singh. The programme consisted of the final publication of the records prepared under that section for an area of 20 square miles, viz., Babu Sukan Singh's estate, disposal of applications and appeals under section 40, and the recovery of arrears of survey and settlement costs.

39. *Progress.*—All case work under section 40 was completed, with the exception of a batch of 273 applications covered by an injunction issued by the Subordinate Judge of Patna, and 46 applications concerning one village, which necessitated further local enquiries. In the cases dealt with, a cash rent of Rs. 13,144 was settled for 2,348 acres, or at a rate of slightly less than Rs. 6 per acre.

Babu Sukan Singh filed appeals to the Commissioner of the Bhagalpur Division under section 104 G, against the orders of the Settlement Officer upholding the Assistant Settlement Officer's decisions in the objections under section 104 E. The Commissioner has upheld the Settlement Officer's orders on all points. A report showing the results of the proceedings is now being prepared for submission to Government, and, before the settlement record takes effect, it must be confirmed by the Governor General in Council.

The Settlement Officer remarks:—

> The most unsatisfactory feature of the situation is that the landlord has used the time, which the formalities of the procedure required, to get rent decrees against many of his tenants in the Civil Courts on what have been found to be fabricated papers and to sell up the holdings in execution. The need is indicated of some more drastic method of dealing with landlords, who have shown such undesirable qualities in that capacity as to require the wholesale settlement of rents, if the unfortunate raiyats are not to be left worse off at the end than they were at the beginning of the proceedings.

40. *Recovery of costs.*—A sum of Rs. 2,461 was recovered, leaving a balance of Rs. 3,910. Of this, Rs. 3,647 is due from Babu Sukan Singh on account of the ordinary costs of the work, exclusive of cost of section 112 work. The amount due from him on this account will be shown in the special report above alluded to.

Killa Bishunpur in Cuttack District.

Area, 17·44 square miles; 44 villages; 5,016 tenants; 24,974 plots.

41. *Completion of the operations.*—Seven hundred and seventy-two cases under section 105 and 94 cases under section 106 were disposed of. A rent of

Rs. 2,375 was imposed on 1,113 acres at an average rate of Rs. 2-2 per acre. No appeal was preferred against the decisions under section 105. The cases under section 106 were mostly for declaration that certain rent-free grants were invalid. It is remarkable that out of the total number of cases instituted only 12 cases were contested. Apportionment of the costs was sanctioned at Re. 1-4 per acre for cultivated and 4 annas per acre for uncultivated lands. The whole recoverable amount, Rs. 10,675, was collected without recourse to coercive measures.

Villages Arillo and Ratagarh in Cuttack District.

Area, 2·06 square miles; 2 villages; 338 tenants; 2,946 plots.

42. *Conclusion of the operations.*—The records of these two villages of Killa Patia were finally published in the previous year. During the year under report the costs of the operations were apportioned and recovered.

CHOTA NAGPUR SETTLEMENT.

43. *Staff and extent of operations.*—Survey and settlement operations were in progress during the year in Hazaribagh, Ranchi, Manbhum and Singhbhum. Mr. J. D. Sifton, I.C.S., was Settlement Officer throughout the year, excepting for 29 days when he was on privilege leave. Mr T. W. Bridge, I.C.S., acted as Settlement Officer during this period. During the field season Messrs. C. L. Philip, I.C.S., T. W. Bridge, I.C S., and J. A. Sweeney, I.C.S, were in subordinate charge of survey and khanapuri operations: Mr. Philip also supervised six attestation camps. He was transferred to general duty on the 19th April, and Mr. Sweeney went on leave from the 13th April. Mr. Bridge remained in charge of the cadastral recess office till the 13th August, when he became Under-Secretary to Government. Mr. N. Bedford was Professional Adviser throughout the year. Of the other officers employed, 11 were Deputy Collectors, 16 were Sub-Deputy Collectors, 5 were Munsifs, and 2 were non-gazetted officers. During the field season, the maximum number of uncovenanted Assistant Settlement Officers employed was 34; in recess, the number dropped to 14.

Hazaribagh District.

Area, 6,911 square miles.

44. *Programme and progress.*—The programme consisted of (1) cadastral survey and khanapuri of 1,881 square miles (field and recess); (2) attestation and draft publication combined with cess re-valuation in 1,806 square miles; (3) case-work under sections 83 (*1*) and 111 (*6*), Chota Nagpur Tenancy Act, and settlement recess work in the attested area; (4) final publication of the record-of-rights of the first season's area (1,480·1 square miles); and (5) computation of costs in respect of the same area. The whole programme was completed, except a small balance of office work which has since been finished.

45. *Cadastral survey and khanapuri.*—This work was supervised by 12 Assistant Settlement Officers. The detailed survey was checked by 1·67 linear miles of partal per square mile, in addition to a check of 10 per cent. of the quadrilateral, on which the detailed survey is based. The amount of check was hardly sufficient, and I have drawn the Settlement Officer's attention to the subject. The size of the average field was found to be ·57 of an acre against ·69 in the previous year. The cost rate per acre rose to Rs. 136 per square mile as against Rs. 126 in the previous year's area. Khanapuri or internal disputes averaged 8 per square mile, and related chiefly to possession.

46. *Attestation.*—Fifteen officers were employed on attestation. The number of raiyats recorded as having khuntkatti rights was 1·8 per cent. of the total number, while the proportions of occupancy and non-occupancy raiyats were 8·9 per cent. and 1·6 per cent., respectively. The percentage of settled raiyats (*kaimi*) was 75·5, all other classes accounting for 12·2 per cent. The total area recorded as landlords' privileged lands was only ·15 per cent. of the total area dealt with. The number of tenancies recorded as *zirat* was 305. Actually, in the major part of the area, there was no custom of privileged lands at all. The average rates of rent per acre varied from thana to thana between 5 annas and to Re. 1-5.

47. *Draft and final publication.*—The system of draft-publishing the records in the attestation camps continued to work well. Final publication was also made from a single camp under the supervision of an Assistant Settlement Officer, instead of in the villages themselves by travelling kanungos. The new system proved thoroughly satisfactory. The Assistant Settlement Officer was able to keep an eye on the publishing kanungos, and also to correct immediately many mistakes brought to his notice. The system is not more costly than the former one, and it has the further advantage that a large number of doubtful points, which could only be settled by summoning the parties, are now promptly dealt with by the Assistant Settlement Officer in charge of final publication.

48. *Systems of village tenure.*—In the villages inhabited by Sonthals, the ordinary form of village tenure is everywhere that of headmanship, identical with the form found elsewhere among the Sonthals of Chota Nagpur. The headman is the principal raiyat of the village; he collects the rent of the other raiyats for a small commission, and controls the distribution of lands and the reclamation within the village. Among other castes, the development of the village has proceeded on different lines: a single family settles in the jungle and proceeds to found a village; for two or three generations no outside raiyats are brought in at all; the family grows, and instead of the head of the family being recognized by the landlord as the tenure holder of the village, each cultivating member is treated as a joint-*thikadar* with the others; at each enhancement of the village-rent a fresh *thika*-lease is given in which all the cultivating members are named as lease-holders, and it is not uncommon to find a village composed entirely of such *thikadars* without a single raiyat under them. The description of such persons as *thikadars* is misleading. In the Civil and Revenue Courts, the term *thika* connotes a temporary tenure resumable by the superior landlord upon the expiry of the term of the lease, whereas the type of *thikadar* described above is in many cases a *khuntkatti* tenure-holder and, even where the family has not cleared the jungle for a settlement, but has settled upon a deserted village site, the settlers' rights are of a permanent nature in their reclaimed lands, and their rights resemble those of a raiyat more than those of a tenure-holder. In a few cases the peculiar nature of their *thika* has been recognized by the Judicial Commissioner's Court, and the *thikadars* have been declared to have a "right of occupancy" in their tenure: the distinction from the ordinary *thika* is also recognized occasionally in documents, and the right is differentiated as *thika doami* (permanent *thika*). The latter description of the tenure is that which has been adopted in the record-of-rights. The rights of such tenants are permanent and heritable, and the rent of their tenure is liable to enhancement from time to time as the village lands are developed. The *doami thika* resembles by custom a raiyati tenancy in not being transferable without the consent of the landlord.

This type of tenure is found in its youngest and purest form chiefly to the south and east of Giridih. The profits are generally very small, the *thikadars* paying over to the landlord all that they collect from the raiyats, and also paying for their own '*bakasht*' (lands in ther own cultivation) lands at a rate not far short of the rates paid by raiyats. *Thikadars* of this type have only the ordinary customary rights of raiyats in the jungle of their village, and are not permitted to waste or destroy the timber.

A curious village ceremonial system, which appears to be a survival of this form of tenure, is found in some villages in thana Chorparan: The tenants of a village are all admittedly raiyats; but the waste lands of the

village (not the jungle) are the joint property of the village community, and, any person making fields out of the waste land, is liable to pay rent not to the landlord but to what is known as the sixteen-anna raiyat. The cultivated lands of the village are described in terms of fractions of the rupee, each raiyat paying a corresponding fraction of the total rent of the village. It is probable that the *thikadars* of the village at some time partitioned their respective shares and received a raiyati status in respect of them, but their old rights in the village waste land have continued joint.

49. *Agrarian conditions.*—The conditions of the greater part of the district under settlement during the year approach more nearly to those of Bihar than any part of Chota Nagpur that has yet been settled. Babhans and Goalas are most prominent among the cultivators and petty tenure-holders, and the older inhabitants of the district, such as Ghatwals and Kolhs, are to a great extent submerged and are working as *kamias* (day-labourers), at least in the more highly developed areas. In Palganj and the south-east portion of Giridih, and also in the north in Gawan and Satgaon, the Sonthals still hold the jungle villages. In Palganj, the *thikadars* and mahajans (money-lenders) have got possession of a large amount of cultivated land, mostly by aid of the Courts. In one village the raiyats declined both at khanapuri and attestation to accept their copies of the khatian, unless the name of the mukhtear who had bought the village was removed from the landlord's column. It is said, however, that in many villages the aboriginals can still hold their own against the Hindu cultivators. In Gawan and Satgaon and part of North Kharagdiha, Sonthali villages under headmen predominate, and most of these villages are held by *khunthkattidars*. Migration of cultivators to labour in the mines for six months of the year is very common.

Ranchi District.

7,104 square miles ; 3,954 villages ; 368,059 tenants ; 3,800,643 plots.

50. *Programme.*—The progamme consisted of (1) the disposal of suits under sections 87, 111 8, 130 and 252, and applications for settlement of fair rents under sections 85 and 85 (2) (*ii*), of the Chota Nagpur Tenancy Act, in respect of an area of 1,202 square miles ; (2) recovery of survey and settlement costs for the same area ; and (3) deposit of records in the Deputy Commissioner's record-room. The whole programme, except the deposit of the records of a few thanas, was completed.

51. *Revision of cases under section 89.*—The system of fair rent settlement first applied to the thanas of Lohardaga and central Ranchi was found to result in very heavy and unfair enhancements in many villages. The application of standard thana rates was therefore abandoned, and it was decided that the rents already settled should be revised. An officer was vested with revisional powers, and the settled rents of all villages in which an enhancement of more than 25 per cent. had resulted from the application of the thana rates were brought under revision. The number of cases revised was 190.

52. *Recovery of costs.*—The year's demand, including previous year's arrears, amounted to Rs. 2,36,489, out of which Rs. 27,676 is still outstanding. The total amount recovered in the district from the commencement of the operations is Rs. 10,64,222.

53. The final report of the survey and settlement operations in the district was published during the year.

MANBHUM.

Pargana Barahabhum and Patkum.

934 square miles; 859 villages; 59,340 tenants; 629,372 plots.

54. *Programme.*—The programme consisted of (1) the final publication of the records of pargana Patkum (298 square miles); (2) computation and recovery of costs in respect of the entire area (934 square miles); (3) fair-rent

settlement and case-work for the whole area; and (4) deposit of records in the District Officer's record-room. The programme was completed, except the fair rent settlement and the deposit of records. For special reasons, the recovery of a sum of over Rs. 49,000 had also to be deferred.

55. *Fair-rent settlement and case-work.*—Some applications for settlement of fair rents relating to Barahabhum pargana were taken up and decided, with the object of fixing the principles on which the rent settlement would be made in the pargana. The appeals, which have been filed in the Commissioner's Court, were pending at the close of the year.

The number of suits filed was not large. The most important suit decided during the year was one under section 180 relating to village Apo, in which the Deputy Commissioner on behalf of the Secretary of State contested the correctness of the entries describing the status of certain ghatwali *tabedars*. The Assistant Settlement Officer, Babu Bhuban Mohan Chatarji, who disposed of the suit, maintained the entry in the record-of-rights, and his finding has been upheld in appeal by the Divisional Commissioner. The Commissioner's decision settles finally the vexed question of the status of the *tabedar* ghatwals, who could prove that notwithstanding the fact that they had been treated as holders of service tenancies by the local officers, they were the descendants of the original clearers of the villages. All such tenants have now been recorded as raiyats having *khuntkatti* rights. They, therefore, cannot be ejected from their tenancies by the Deputy Commissioner, and their tenancies can no longer be treated as service holdings. After the decision of the test case, the other suits, which had been filed contesting the accuracy of the record on this point, were withdrawn.

In Patkum the landlords attacked the entries relating to the status of Mundari khuntkattidars and khuntkattidars. The suits were generally found to be frivolous. Other suits filed related to possession, shares, rents, etc., and were of no special interest.

Singhbhum.

56. Settlement work has been practically completed in this district. A few cases remain to be disposed of relating to the Manoharpur tenure. The settlement of the Dhalbhum estate has been completed, and the report of the operations has been submitted to Government.

CHAPTER IV.

[*See* Appendices I to X.]

REVISION SETTLEMENTS AND MAINTENANCE OF LAND RECORDS.

Orissa Revision Settlement.

Area, 5,196·62 square miles; 10,757 villages; 2,348,068 tenants; 9,076,741 plots.

57. *Staff.*—Mr. J. F. W. James, I.C.S., was in charge of the operations throughout the year. Twenty-seven Assistant Settlement Officers were employed on the operations for periods varying from one year to two months.

58. The operations in the districts of Cuttack, Balasore and Puri were practically completed, and only a small number of suits remained to be disposed of at the end of the year. The final report of the operations is being written by the Settlement Officer, and will, it is hoped, be published during the current year. Generally speaking, the procedure followed in dealing with the various branches of the work was the same as in the previous year.

59. *Case work.*—Applications under section 105 were nearly all filed by the tenants themselves for settlement of rent on newly cultivated land. If the Darpan Estate, which is under the Court of Wards' management, be excepted, landlords filed applications for assessment of new cultivation in only one village. Rents were ordinarily assessed at the village rate of last settlement, though the latter was sometimes enhanced by 25 per cent; 1,439 applications were received for enhancement of existing rents. Subdivisions of tauzis and tenancies have made the area of the average tenancy so small, that landlords find enhancement suits even under section 105 not worth the court-fees involved. In Puri, where the average rent of a tenancy is Re. 1-6, landlords will not spend Re. 1 in Court and process-fees to obtain an enhancement which will probably not exceed 3 annas. In Cuttack the average rent of a tenancy is about Rs. 3-8; but even there, landlords are on the whole unwilling to apply for rent settlement when they know that the work will be done 15 years hence by Government. The average enhancement granted was 2·08 annas in the rupee.

Suits under section 106 generally concerned possession of small areas. Two complicated cases relating to the status of tenure-holders under the Bhubaneswar Temple were transferred to the Civil Court.

About half the number of applications under section 108A were brought by parties who do not understand the changes made in the Revision settlement. The rest chiefly related to mistakes of a clerical character. In disposing of applications under section 40, the general principle adopted was to take the mean between the settlement village rate as representing cash rent under section 40 (*4*)(*a*) and the value of the produce found under section 40 (*4*)(*b*), provided that the rent so fixed was not more than double the village rate. A common ground of contention was the size of the basket which is used for appraising the crop. In Balasore it was said that zamindars appraised with a $2\frac{1}{2}$-seer basket, and collected in one holding $2\frac{3}{4}$ seers, thus practically enhancing the appraisement by 10 per cent.

60. *Consignment of records.*—In Balasore all records were made over to the Collectorate record-room. In Cuttack and Puri the work was still in progress at the close of the year.

61. *Duration and cost of the operations.*—The operations have now lasted over seven years and cost up to date Rs. 11,03,161 net, which gives an incidence of a little over Rs. 212 per square mile. It is expected the total net cost will not exceed $11\frac{1}{2}$ lakhs.

Experimental Maintenance of Records in Orissa.

62. Agreeably to the views of the Secretary of State contained in his No. 18, dated the 24th February, 1911, the annual maintenance experiment in the district of Balasore was abandoned during the rains of 1911, and arrangements were made to start the triennial maintenance scheme in the following field season. The district of Balasore was divided into three circles in charge of 3 Assistant Superintendents, under each of whom 3 Inspectors and 21 recorders were employed. Khanapuri was started in the beginning of November and completed by the end of May. The programme of the year consisted of 1,181 villages with 7,87,964 plots; the average outturn per recorder per month amounted to 3,696 plots.

The district of Cuttack was divided into five circles in charge of 3 Assistant Superintendents, under whom 6 Inspectors and 52 recorders were employed. Khanapuri was not started until the beginning of December, as the copies of the records were not ready earlier, and the work was prolonged into the month of June. The programme consisted of 697 villages with 5,96,421 plots; the average outturn per recorder per month amounted to 3,389 plots.

In fixing the area of recorders' circles, chaukidari unions were made the unit as far as possible, and the recorders themselves were usually appointed on the nominations of the Panchayats in both districts.

Attestation work was commenced in both districts as soon as the records were available. In Balasore the records of 1,147 villages with 7,76,729 plots and 11,765 internal disputes, covering an area of 527 square miles, were attested by 3 Assistant Superintendents in about 6½ months; and in Cuttack 671 villages with 5,64,955 plots and 8,028 internal disputes, covering an area of 238 square miles, were attested by 3 Assistant Superintendents in about 5¼ months.

The percentage of changes made in the record-of-rights was as follows:—

District.	Khewat.	Khatian.	Map.
Balasore	60	27·3	2·1
Cuttack	32	43·0	3·6

Considerable difficulty has been experienced in obtaining competent recorders. Uriya surveyors have not been as yet properly trained, and they are both slow and inefficient. In the Provincial Settlement the attempt to work with them had to be abandoned, though it is likely that the surveyors then employed had more natural aptitude for the work than the nominees of presidents of Panchayats who are now employed as recorders.

Regarding the success of the present experiment, the Settlement Officer, Mr. James, has recorded the following opinion:—

The experiment has been on the whole popular with raiyats, and is liked by small landlords who are obtaining an accurate record of *pattidari* possession. Otherwise zamindars as a class dislike it. The scheme as it stands is practicable, but even the triennial scheme is exceedingly costly. The subordinate staff requires much supervision, and the area covered by the operations is so large, and one recorder is always so far from another that it is difficult to supervise the work adequately. As the circles are already as large as can be conveniently supervised, I think that decennial maintenance, an alternative proposed by the Government of India, is not practicable, if each record-keeper is to reside in a circle of which he will correct records for one-tenth in a year. Present arrangements for settlement are certainly unsatisfactory, whereby a very large number of men, sometimes over a thousand, are employed temporarily on this important work. With no hope of permanent employment, and every prospect of their appointment being terminated before any mal-practices are detected, it is no ground for wonder that the subordinate staff are corrupt and lazy. The arrangement which I would like best would be similar to that adopted in the Moyurbhanj State, viz., to have a comparatively small and expert staff, doing decennial or quin-decennial revision and taking up 5 or 6 lakhs of plots per annum as the case might be. The staff should be permanently employed, and the posts should be pensionable. The temporarily-settled area could be divided into 10 or 15 tahsils, with which, having due regard to both revenue and police requirements, thana boundaries could be made to agree to save confusion. Each tahsil would come under settlement year by year in regular rotation. A mistake was made in 1897 when all the kabuliyats for the three districts were made to expire on the same date. This cannot be remedied until the next settlement, but it can be remedied then. When once a different date for expiry has been allotted to each tahsil, the revision of revenue would be very simple. It would be even sufficient, I think, to revise every 20 years, and to let the settlement department take up 4½ lakhs of plots per year. It is inevitable that in 1927 there should be the rush that there was in 1897, with all the kabuliyats then expiring: but it need happen no more after that. This is to my mind the best solution of the problem. Triennial maintenance is practicable, but very expensive, and with all the expense it is difficult to find competent local recorders.

My predecessor has already submitted a report on the subject of maintenance, and the whole question is still under the consideration of the Government of India.

63. *Maintenance of Land Records in Sambalpur.*—The proposals for improving the pay and prospects of the land records' staff, which were submitted to the Board by my predecessor in June, 1911, were sanctioned during the year under Bengal Government order No. 3475, dated 20th October, 1912, and took effect from 1st April, 1912.

64. Proposals for the abolition of *kita* boundaries in the settlement traces were made in the previous year, and with the approval of my predecessor, the experiment was tried in two of the Revenue Inspectors' circles during the year under report. As a result of the experiment, it has been decided that it is unnecessary to show the *kita* boundaries in the maps, in future.

65. The prescribed amount of check work was attained by the Revenue Inspectors, who checked 10 per cent. of the total number of *khusra* entries.

The inaccuracies discovered in the check of the *jamabandi* entries by *kanungos* amounted to 2·21 per cent. as against 1·63 per cent. in the previous year. Instructions were given as usual to patwaris and to patwari candidates in the survey classes, which were opened at the Revenue Inspectors' headquarters during the rains, and 126 patwaris and 75 patwari candidates appeared at the examination held in October. The offices of the *kanungos* of Sambalpur and Bargarh were inspected once by the Deputy Commissioner, once by the Subdivisional Officers and once by the Superintendent of Land Records, and found to be in good order. The work of the Land Records staff was on the whole satisfactory.

66. *North Bihar Mutation offices.*—The mutation offices at Bettiah, Hajipur and Mahnar have again proved a failure. The net loss on the three offices during the year under report amounted to Rs. 1,905 as against Rs. 1,663 in the previous year. They should be abolished as soon as the North Bihar revision operations are commenced.

67. *Record of mutations in Government and Wards' estates.*—In Appendix VII will be found the result of the mutations effected during the year in Government and Wards' estates, for which a record-of-rights has been prepared. The standard number of mutations, viz., 8 per cent. of the total number of tenancies, was attained in three and exceeded in five districts. In the remaining districts, the percentage varied from 1·5 to 7 per cent. In the Chandbali and Bhadrak Salt Gola estates in Balasore, in the Khurda and Kodhar Government estates in Puri, in the Hardaspur, Imadpatti, and Mahesur Chandauli estates in Darbhanga, and in the Deopara and Kaithwalia estates in Saran, no mutations were effected during the year. In district Balasore mutation work was held in abeyance, owing to a misunderstanding as to the nature of the work being carried out by the Maintenance staff. The records of the Khurda and Kodhar estates had been brought up to date during the recent revision operations. In the district of Darbhanga, there are only four Government estates, in one of which mutations nearly attained the standard percentage, but no adequate explanation has been given of the absence of mutations in the other three estates. Similarly, in the district of Saran, no satisfactory explanation of the failure to effect mutations is available in respect of two estates, while one estate is reported to have been entirely deserted, and in the remaining three estates there were some mutations, though the number is considerably below the normal standard.

The average percentage of mutations in all Government estates is 4·66; but if the figures for those estates, in which no mutations were effected are omitted, the percentage is over 6, which is, I think on the whole fairly adequate.

Of the wards' estates included in the return, the prescribed standard was attained in three and exceeded in four estates. In the Chota Nagpur and Tirhut Divisions and in the district of the Sonthal Parganas of the Bhagalpur Division, the percentage was generally low. In Chota Nagpur the low percentage is said to be due to the recent publication of the record-of-rights and to restrictions imposed on transfers by the Chota Nagpur Tenancy Act; in the Tirhut Division the mutations in the Bettiah estate were satisfactory; but in the majority of the petty estates the prescribed standard was not attained, and this was due either to inadequate inspections and lack of supervision by the managers, or to the non-recognition of the mutations of portions of holdings. In the Narhan Ward's estate, though a staff of mutation inspectors, tahsildars and patwaris was employed on mutation work, and the settlement records were tested on the spot by these officers, the number of mutations amounted to only 1·7 per cent., and no adequate explanation appears to be forthcoming; no explanation also appears to have been given for the low percentage in the Sonthal Parganas, and the Commissioner has asked for an explanation of the deficit as required by the Board's circular order No. 11 of April, 1903.

The percentage of mutations for the whole Province amounted to 7·08, as against 2·8 in the preceding year.

68. *Inspection of rent-rolls.*—The results of the inspection of rent-rolls by superior and inferior agencies have been embodied in Appendix X. As in previous years, the percentage of check in some cases amounted to 100 per

cent., though in these cases no unreported mutations were detected. I am doubtful about the correctness of these returns.

In several estates the prescribed standard of 50 per cent. check of the rent-rolls was not attained; nor have any satisfactory explanations of the failure to reach the standard been furnished.

CHAPTER V.

[*See* Appendix XI.]

Maintenance of Boundary Marks.

69. The reports received from the district officers indicate that the subject continued to receive attention. The details of the results of inspection of the marks will be found in Appendix XI. I have summarized below the more important items in the district officers' reports:—

Patna Division.—During the year boundary mark registers and maps, which were prepared during the survey and settlement operations, were made over by the Settlement Officer to the Collector of Patna. Dafadari registers are under preparation in the Collector's office, on completion of which the work of making over the marks to the dafadars will be taken up. The boundary marks in the Government estates were inspected by the Sub-divisional officers, and, with five exceptions, were found to be all intact. The Collector reports that steps are being taken to restore the damaged or missing marks. In the district of Gaya, the maintenance work was mainly confined to the Government and Wards' estates: sixty-four marks were found damaged or missing, of which eight were restored during the year. In district Shahabad, the marks in the Government estates were inspected by the district staff, and, with two exceptions, were found to be intact. The two missing marks cannot be restored until the bed of the river Ganges recedes to its former position.

70. *Tirhut and Bhagalpur Divisions.*—Save in district Purnea, the systematic maintenance of boundary marks in private estates is being carried out only in the tracts of the divisions lying south of the river Ganges. In the other areas, the work is mainly confined to the Government and Wards' estates. In Purnea, South Bhagalpur and South Monghyr, the position of the marks are being verified, and they are being allotted to the dafadars. Adequate attention appears to have been paid to the inspection and repair of the boundary marks in the Government and Wards' estates. In district Saran, the Majhauli estate was recently brought under the management of the Court of Wards, and orders are being issued to ensure the systematic inspection and maintenance of boundary marks within the estate. In the Sonthal Parganas under the terms of the village record-of-rights, the village headmen are primarily responsible for the maintenance of the boundary marks, and whenever they are removed or damaged, and the culprit cannot be traced, the village community pays for the replacement. According to the above arrangement, the cost was realized from the villagers of the 27 damaged or missing marks which were restored during the year.

71. *Orissa Division.*—As in the previous year, the work of the supervision and maintenance of the boundary marks in the districts of Cuttack, Balasore and Puri was under the control of the Revisional Settlement Department, and the marks found damaged or missing were restored at the cost of the Settlement Department. In the districts of Angul and Sambalpur, the subject continued to receive the special attention of the Deputy Commissioners. In the first-named district, 37 new pillars were erected during the year on the borders of the Hindol, Dhenkanal, Talcher and Bamra States at a cost of Rs. 166-8. In Sambalpur the village *mukaddams* are responsible for the maintenance of the boundary marks which are inspected by the patwaris at the

time of the annual field-to-field inspection The marks were generally found to be in good order, and in three cases only was it found necessary to fine the *mukaddams* for neglect of duty.

72. *Chota Nagpur Division.*—The work of verification and allocation of the boundary marks to the local police was carried on during the year in the district of Ranchi, in pargana Barahabhum in district Manbhum, and in the Manoharpur tenure in the district of Singhbhum. The work in Manbhum and Singhbhum was completed. In the absence of proper records, the work of maintenance in the district of Palamau was confined to the Government estates. All the marks were inspected during the year and those found damaged or missing were restored. A case of encroachment upon the boundary limits of a Government village was enquired into during the year and the offender was fined Rs. 5. In the district of Singhbhum, both in Government and private estates, inspection of the boundary marks was very thorough, and the steps taken for their maintenance were adequate.

CHAPTER VI.

Charge and Tours of the Director and notice of Officers.

73. *Charge.*—Mr. H. McPherson, I.C.S., was in charge of the Department up to the forenoon of the 15th April, 1912, when I took charge from him.

74. *Tours.*—Mr. McPherson paid two visits each to the Chota Nagpur, South Bihar, and Orissa Settlements prior to his making over charge to me. During the rains I visited once the Chota Nagpur, South Bihar, Orissa, and Khurda Settlements. Mr. McPherson was unable to spend the usual period on tour during the cold weather, owing to the fact that he was the member in charge of the Orissa Tenancy Bill, and was obliged to remain at head-quarters for the greater part of the field season. He spent, however, 30 days on tour. I was on tour for 42 days during the rains.

Notice of officers.

75. I desire to bring to the notice of the Board the excellent work done during the year by several officers of the Department. Of the Settlement Officers, Messrs. Sifton and Hubback maintained a high standard of work in Chota Nagpur and Bihar, respectively, while Mr. James, the Settlement Officer of Orissa, did a great deal to improve the standard of accuracy in the Orissa revision settlement and the maintenance of land records. Of the covenanted Assistant Settlement Officers, the late Mr. Shettle supervised attestat on work in Bihar in a most thorough and efficient manner; Mr. Duncan, notwithstanding his inexperience, rendered considerable assistance in the cold weather and proved most useful in recess; in Chota Nagpur, Messrs. Philip, Sweeney and Bridge are reported to have worked with great energy to complete the heavy programme of survey and record-writing in due time.

The majority of the other Assistant Settlement Officers worked satisfactorily, though a few of the younger and more inexperienced officers were found to be unequal to the arduous work expected from them, and had to revert before the completion of the field programme.

The following officers have been selected for special mention from this year's reports:—

Deputy Collectors.

Babu Charu Chandra Kumar.
Mr. L. B. Burrows.
„ Nrishinha Ranjan Mukharji.
Maulvi Shams-ud-din Haidar.
Babu Bhuban Mohan Chatarji.
„ Bijay Bihari Mukharji.
„ Sudhansu Bhushan Mitra.
Babu Jiban Chandra Chatarji.
Lala Prem Nath Kapur.
Babu Ramu Lal Varma.
„ Hari Das Ray.
Pandit Lakshmi Misra.
Mr. Hugh McPherson.
Babu Basanta Kumar Ray.

Sub-Deputy Collectors.

Babu Jogendra Nath Banarji.
„ Radha Charan Das.
„ Babu Phanindra Nath Gupta.
Babu Surendra Nath Banarji (No. II).
„ Romesh Chandra Chakrabatti.
„ Dhanmassi Panna.
Babu Satyesh Chandra Gupta.

Others.

Mr. H. W. Alderson.
Mr. J. E. Coutts.
Babu Romesh Chandra Ghosh.

I have the honour to be,

SIR,

Your most obedient Servant,

JOHN REID,

Director of the Department of Land Records, Bihar and Orissa.

APPENDICES

[*N.B.*—Figures in these Appendices, which do not agree with those in last year's Report, are revised figures.]

APPEN

General Progress of Survey and Settlement

Division and District.	Name of estate or tract under settlement.	Date of inception of operation.	Estimated area, in square miles, under settlement.	Total number of villages.	Area cadastrally surveyed, in square miles—			Area in which records have been prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
Orissa.										*Government*
Balasore	Bichitrapur ...	January 1907	5·56	6	5·56	...	5·56	5·56	...	5·56
Puri	Khurda Estate ...	1st Sept. 1911	883	1,377	...	...	...	...	883	883
										II.— Other
										(*a*) *Ori-*
Patna.										
Patna	Patna ...	1st Nov. 1906	1,942 80	2,510	1,942·80	...	1,942·80	1,942·80	...	1,942·80
Shahabad	Shahabad ...	Nov. 1908 ...	4,171	6,025	3,390	781	4,171	3,390	781	4,171
Bhagalpur.										
Monghyr	South Monghyr ...	October 1906	2,285	2,017	2,285	...	2,285	2,285	...	2,285
Orissa.										
Cuttack	Killa Bishunpur	14th Feb. 1909	17·44	44	17·44	...	17·44	17·44	...	17·44
Ditto	Arillo and Ratagarh.	10th Jan. 1910	2·06	2	2·06	...	2·06	2 06	...	2·06
Chota Nagpur.										
Hazaribagh	Hazaribagh ...	1st Oct. 1909	6,911	Not known	3,312	1,881	5,193	3,312	1,881	5,193
Ranchi	Ranchi	1st Mar. 1902	7,104	3,954	7,104	...	7,104	7,104	...	7,104
Manbhum	Barabhbhum and Patkum.	1st Oct. 1908	934	859	934	...	934	934	...	934
Singhbhum	Dhalbhum ...	1st Sept. 1906	1,179	1,686	1,179	...	1,179	1,179	...	1,179
Ditto	Monoharpur tenure.	1st Nov. 1908	14	6	14	...	14	14	...	14
Orissa.										(*b*) *Revi*
Cuttack	Cuttack	20th Jan. 1908	2,383 84	5,039	2,383·84	...	2,383·84	2,383·84	...	2,383·84
Balasore	Balasore ...	22nd Sept. 1906	1,701·65	3,599	1,701·65	...	1,701·65	1,701·65	...	1,701·65
Puri	Puri (including Khurda, Ekrajat and Khandaiti.	11th Oct. 1909 11th Sept. 1910 1st June 1910	1,111·13	2,119	1,111·13	...	1,111·13	1,111·13	...	1,111·13
										(*c*) *Experimental*
Cuttack	.....	1st Dec. 1911	296·07	769	...	...	...	...	259·01	259·01
Balasore	.....	1st Nov. 1908 1st Nov. 1909 1st Nov. 1911	559·96	1,197	...	...	...	...	549·05	549·05
	Total ...	.....	31,501·51	31,309	25,382·48	2,662	28,044·48	25,382·48	4,353·06	29,735·54

(*a*) Cost included in the cost of Revision operations in
(*b*) Includes Rs. 328 for enquiries into landlords' privileged lands,
(*c*) Includes Rs. 243 for ditto ditto and Rs. 3,063 for

DIX I.

during the year ending 30th September, 1912.

SQUARE MILES—									Cost of operations—			Total cost-rate in the operations shown as completed in this return.	
In which attestation has been completed—			In which draft publication has been completed—			In which final publication has been completed—							
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
Land Revenue.									Rs.	Rs.	Rs.	Rs.	Rs.
Estates.													
5·56	...	5·56	5·56	...	5·56	...	5·56	5·56	... (*a*)	... (*a*)	... (*a*)	...	...
...	..	...	...	...	...	...	...	...	...	18,504	18,504	...	...
Settlements.													
ginal.													
1,942·80	...	1,942·80	1,942·80	...	1,942·80	1,942·80	...	1,942·80	4,79,002	35,456	5,14,458	...	...
1,837	1,551	3,388	1,837	1,551	3,388	483	1,259	1,742	7,77,326	3,30,583	11,07,909	...	...
2,285	...	2,285	2,285	...	2,285	2,265	20	2,285	4,48,476	3,009	4,51,485	...	...
17·44	...	17·44	17·44	...	17·44	17·44	...	17·44	7,184	1,332	8,516	...	...
2·06	...	2·06	2·06	...	2·06	2·06	...	2·06	917	24	941	...	...
1,506	1,806	3,312	1,506	1,806	3,312	25	1,481	1,506	5,39,430	4,03,552	9,42,982	...	...
7,104	...	7,104	7,104	...	7,104	7,104	...	7,104	11,17,219	11,269	11,28,488	...	...
934	...	934	934	...	934	636	298	934	2,36,768	11,206	2,47,974	...	...
1,179	...	1,179	1,179	...	1,179	1,179	...	1,179	2,82,343	11,880	2,94,223	...	...
14	...	14	14	...	14	14	...	14	1,681	91	1,772	...	...
sional.													
2,383·84	...	2,383·84	2,383·84	...	2,383·84	1,751·99	631·85	2,383·84					
1,701·65	...	1,701·65	1,701·65	...	1,701·65	1,601·35	100·30	1,701·65	12,38,778	2,04,532	14,43,310	...	...
1,111·13	...	1,111·13	1,111·13	...	1,111·13	...	1,111·13	1,111·13					
Maintenance.													
...	238·46	238·46	...	238·46	238·46	...	...	...					
									72,345	1,00,667	1,73,012	...	...
...	526·98	526·98	...	526·98	526·98	...	..	...					
22,023·48	4,122·44	26,145·92	22,023·48	4,122·44	26,145·92	17,021·64	4,906·84	21,926·48	(*b*) 52,01,797	(*c*) 11,35,411	63,37,208	...	...

Balasore.
disposal of objections, etc., in Porahat Estate in Singhbhum.
preparations for survey work in Gaya district.

APPENDIX II.

Return of Survey and Khanapuri Inspection and of Boundary and Internal Disputes during the year ending 30th September, 1912.

Name of area under Settlement.	CADASTRAL SURVEY.						KHANAPURI.					Number of boundary disputes decided.	Number of internal disputes decided.
	Area in square miles surveyed during the year.	PERSONAL PARTAL IN LINEAR MILES— By Assistant Settlement Officers.	By Kanungos and Head Inspectors.	By Inspectors.	Independent partal in linear miles.	Total partal in linear miles.	Total number of plots khanapuried.	NUMBER OF PLOTS TESTED— By Assistant Settlement Officers.	By Kanungos and Head Inspectors.	By Inspectors.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Original.							
Shahabad ...	780·86	142·53	419·30	1,055·16	758·87	2,374·86	444,929	7,878	15,743	58,398	82,019	160	14,707
Ditto ...	77·25*	·17	6·15	31·39	26·67	64·38	...	...	...	...	...	...	...
Ditto ..	·39†	...	...	2·28	0·12	2 40	4,036	430	...	1,992	2,422	...	...
Gaya	47·90*	...	3·88	19·63	16·63	40·14	...	...	...	...	...	...	...
Palamau	25·01*	...	2·27	11·44	9·70	23·41	...	...	...	...	...	...	...
Hazaribagh ...	1,881	223	424	2,608	1,280	4,435	2,076,382	16,492	24,824	184,888	2,26,204	472	16,254
						Experimental Maintenance.							
Cuttack	...	...	...	...	...	...	5,96,421	6,053	...	57,224	63,277	...	...
Balasore	...	...	...	...	...	...	7,99,790	1,962	...	55,496	57,458	...	...

* Topographical survey of Sone river bed surveyed in connection with the Shahabad district operations.
† Dumraon Municipality.

APPENDIX III.

PART A.

Progress in settlement of rents under section 104, Act VIII of 1885, in areas that were under settlement of Land Revenue during the year ending 30th September, 1912.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents have been proposed—			Number of villages for which settlement rent-roll has been published in draft—			Objections under section 104 E.		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	Instituted— To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Shahabad	115·99	244	22,115	...	15,265	15,265	...	141	141	....	951	951
Balasore: Bichitrapore Government estate.	5·56	6	1,092	1,092	...	1,092	6	...	6	...	22	22

Estate or tract under settlement.	Objections under section 104 E.			Number of villages and tenants for which a settlement rent-roll has been confirmed—						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			Previously.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent. + or —
	14	15	16	17	18	19	20	21	22	23	24	25
Shahabad	...	734	734	...	...	59	4,848	59	4,848	69,543	73,273	+ 5·36
Balasore: Bichitrapore Government estate.	...	22	22	...	...	6	1,092	6	1,092	4,559	5,629*	+ 23·4

* Rent at present settlement Rs. 5,273 + Enhancement Rs. 356 under section 32, Bengal Tenancy Act, to take effect from 1814.

APPENDIX III.

PART B.

Progress in settlement of rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1912.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109(c), Bengal Tenancy Act.				Number of section 105 cases which have been instituted—			
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	Previously.		During the year.	
								Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12
			I.—Original.		Rs.	Rs.	Rs.				
Patna	1,042·80	2,510	527,810	...	..	...	..	344	4,640	25	222
Shahabad (excepting thanas Sasaram and Dehri.)	3,388	5,133	596,608	2,084	33,523	...	31,812	127	2,367	5,439	48,074
Cuttack : Killa Bishunpur.	17·44	44	5,016	...	...	...	...	...	...	772	772
Hazaribagh ...	1,606	895	46,790	...	...	...	...	..	...	630	9,815
Ranchi.											
Section 85, C. N. T. Act. / Section 85, (2) (*ii*), C. N. T. Act.	3,187	1,974	188,280	...	...	...	...	1,044	21,669	76	3,140
Manbhum, Barabhum and Patkum.											
Section 85 C. N. T. Act. / Section 85, (2) (*ii*), C. N. T. Act.	934	859	59,340	...	...	...	...	991	...	298 / 406	... / ...
Singhbhum.											
Monoharpur tenure	14	6	549	...	...	...	...	3	17	...	..
			II.—Revisonal.								
Cuttack	2,383·84	5,039	1,289,318	...	...	...	...	4,138	4,190	4,228	4,325
Balasore ...	1,701·65	3,599	660,377	...	...	...	...	12,916	13,793	59	88
Puri	1 111·13	2,119	458,573	...	...	...	...	...	...	2,196	2,196

Estate or tract under settlement.	Number of section 105 cases which have been instituted—		Number of cases which have been disposed of—						Of tenants in column 19.		
	Total.		Previously.		During the year.		Total.		Former rental.	New rental.	Difference, per cent + or —.
	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.			
	13	14	15	16	17	18	19	20	21	22	23
				I.—Original.					Rs.	Rs.	
Patna	369	4,862	213	4,183	150	523	363	4,706	1,688	1,815	+7·52
Shahabad (excepting thanas Sasaram and Dehri).	5,536	50,441	...	...	2,174	19,421	2,174	19,421	55,966	59,827	+6 89
Cuttack.											
Killa Bishnpur ...	772	772	...	...	772	772	772	772	3,015	5,392	+78·84
Hazarbagh* ...	630	9,815	...	...	26	38	26	38	...	...	...
Ranchi	1,044 / 76	21,669 / 3,140	585 / ...	11,412 / ...	459 / 76	10,257 / 3,140	1,044 / 76	21,669 / 3,140	59,511	64,758	+8·83
Manbhum. Barabhum and Patkum.											
Section 85, C. N. T.* Act.	1,289	...	...	...	527	...	527	...	...	...	...
Section 85 (2), (*ii*), C. N. T. Act.	406	...	...	...	14	...	14	...	...	...	...
Singhbhum											
Monoharpur tenure	3	17	...	...	2	16	2	16	35	25	+40·00
				II.—Revi ional.							
Cuttack	8,366	8,515	2,196	2,244	6,148	6,249	8,344	8,493	14,328	20,078	+39·92
Balasore	13,975	13,881	12,915	13,792	60	89	12,975	13,881	220	416	+89·10
Puri	2,196	2,196	...	...	2,086	2,086	20,86	2,086	853	3,709	+334·82

* Column 19.—Struck off.

APPENDIX III.

PART C.

Progress in disposal of Case-work other than settlement of fair rents during the year ending 30th September, 1912.

Name of estate or tract under settlement and nature of case.	Instituted previously.	Instituted during the year.	Total. instituted.	Disposed of in previous years.	Disposed of during the year.	Total disposed of.	Balance pending.
1	2	3	4	5	6	7	8
Patna.			*I—Original.*				
Section 40 ...	6,932	137	7,069	5,843	1,175	7,018	51
Do. 106 ...	346	68	414	317	87	404	10
Shahabad.							
Section 40 ...	847	877	1,724	...	63	63	1,661
Do. 103A ...	93,088	16,212	1,09,300	93,088	16,212	1,09,300	...
Do. 106 ...	102	3,771	3,873	...	1,399	1,399	2,474
South Monghyr.							
Section 40 ...	14,922	6	14,928 —3,208*	11,078	323	11,401	319
			11,720				
Cuttack : Killa Bishunpur.							
Section 40 ...	...	1	1	...	1	1	...
Do. 106 ...	...	94	94	...	94	94	...
Do. 108A ...	...	10	10	...	9	9	1
Hazaribagh.							
Boundary disputes ...	1,235	472	1,707	1,235	472	1,707	...
Section 61, C. N. T. Act	175	242	417	163	244	407	10
Do. 83 (1), ditto...	4,823	9,984	14,807	4,823	9,984	14,807	...
Do. 87 ditto...	...	165	165	...	12	†12	153
Do. 111 (6), ditto ...	157	182	339	157	182	339	...
Do. 130 ditto...	...	15	15	...	1	†1	14
Ranchi.							
Section 61, C.N. T. Act	602	13	615	600	15	615	...
Do. 87, ditto...	608	...	608	401	207	608	...
Do. 94, ditto...	2,246	...	2,246	2,245	1	2,246	...
Do. 111(8), ditto...	51	...	51	48	3	51	...
Do. 130, ditto...	7	...	7	...	7	7	...
Do. 252, ditto...	15	...	15	...	15	15	...
Do. 85, ditto (Revisional).	...	190	190	...	190	190	...
Manbhum : Parganas Barahabhum and Patkum.							
Section 87, C. N. T. Act	49	50	99	...	81	81	18
Section 130, ditto ...	24	48	72	...	67	67	5
Do. 252, ditto ...	...	38	38	...	31	31	7

* Transferred to the Collector of Monghyr.
† Column 7.— Struck off.

Name of estate or tract under settlement and nature of case.	Instituted previously.	Instituted during the year.	Total instituted.	Disposed of in previous years.	Disposed of during the year.	Total disposed of.	Balance pending.
1	2	3	4	5	6	7	8
Singhbhum : Porahat estate.							
Section 87, C. N. T. Act	2	...	2	...	2	2	...
Monoharpur tenure.							
Section 87, C. N. T. Act	2	...	2	...	1	1	1
Do. 89, ditto ...	1	...	1	...	1	1	...
Cuttack.			*II—Revisional.*				
Boundary disputes ...	26	...	26	25	1	26	...
Section 40 ...	1,420	3,006	4,426	...	3,685	3,685	741
Do. 106 ...	2,712	4,156	6,868	2,074	4,786	6,860	8
Do. 108 ...	5	11	16	5	5	8	6
Do. 108A ...	2,469	1,353	3,822	2,303	884	3,187	635
Balasore.							
Section 40 ...	1,595	16	1,611	1,532	79	1,611	...
Do. 106 ...	1,516	91	1,607	1,506	101	1,607	...
Do. 108 ...	20	1	21	20	1	21	...
Do. 108A ...	3,219	33	3,252	3,187	65	3,252	...
Puri.							
Section 40 ...	100	422	542	...	255	255	287
Do. 106 ...	...	2,713	2,713	...	2,595	2,595	118
Do. 108 ...	...	4	4	...	3	3	1
Do. 108A ...	...	843	843	...	451	451	392

APPENDIX III

PART D.

Progress in settlement of Land Revenue during the year ending 30th September, 1912.

Name of estate or tract under settlement.	Total area.	Total existing assets.	Total new assets.	NEW LAND REVENUE SETTLED DURING THE YEAR.				TOTAL COST AND COST RATE.		
				Area.	Existing Land Revenue.	New Land Revenue.	Percentage of difference, + or —.	Total costs incurred on area in column 5.	Cost rate per square mile according to sanctioned estimate.	Actual cost rate per square mile, column 9÷5.
1	2	3	4	5	6	7		9	10	11
	SQ. M.	Rs.	Rs.	SQ. M.	Rs.	Rs.		Rs.	Rs.	Rs.
Shahabad district ...	115·99	Not available						20,607	...	...
Balasore: Bichitrapore Government Estate.	5·56	4,674	5,625	3·85	4,674	5,629	+20·4	...	...	...

PART E.

Results of Appeals during the year ending 30th September, 1912.

Name of estate or tract under settlement.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	RESULTS OF APPEALS (COLUMN 5).			
						Decisions—			Cases returned for retrial.
						Upheld.	Modified.	Reversed.	
1	2	3	4	5	6	7	8	9	10
				I.—Original.					
Patna	Section 40, B. T. A....	184	157	336	5	261	53	19	3
	Do. 105, ditto ...	53	67	119	1	66	48	4	1
	Do. 106, ditto ...	9	26	28	7	17	7	4	...
Shahabad	Boundary disputes ...	...	51	51	...	47	3	...	1
	Section 40, B. T. A.	...	4	4	...	3	1	...	...
	Do. 105, ditto ...	...	21	...	21	...	...	...	...
	Do. 106, ditto ...	...	8	...	8	...	...	...	...
	Do. 108A, ditto ...	...	1	...	1	...	...	...	...
	Do. 104G, ditto ...	...	3	2	1	2	...	...	...
South Monghyr	Section 40, B.T.A.	302	56	358	...	303	51	2	2
	Do. 105, ditto ...	12	...	12	...	12	...	...	...
	Do. 106, ditto ...	7	...	7	...	7	...	...	...
Hazaribagh	Boundary disputes ...	10	98	106	2	75	9	11	11
	Section 61, C. N. T. A.	...	21	1	20	1	...	...	...
Ranchi	Section 61, C. N. T. A.	8	3	11	...	9	1	1	...
	Do. 85, ditto	2	29	27	4	11	5	11	...
	Do. 87, ditto	15	43	44	14	33	2	6	3
	Do. 130, ditto	...	5	5	...	5	...	...	...
	Do. 252, ditto	...	6	1	5	...	1	...	...
Manbhum: Barabhbhum and Patkum.	*Section 85, C. N. T. A.	...	5	4	1	4	...	...	...
	†Do. 87, ditto	...	4	...	4	...	...	...	...
	‡Do. 87, ditto	...	3	...	3	...	...	...	...
	†Do. 130, ditto	...	4	4	...	4	...	...	...
	†Do. 252, ditto	...	1	...	1	...	...	...	...
				II.—Revisional.					
Cuttack	Sections 40, B. T. A.	3	246	225	24	...	...	...	... §§
Balasore									
Puri	§Sections 105 and 106, B. T. A.	17	223	95	145	48	14	...	3

* Settlement officer's Court.
† Commissioner's Court.
‡ Judicial Commissioner's Court.
§ 30 others were compromised, withdrawn, etc.
§§ Results not reported.

APPENDIX IV.

Statement showing the nature and number of holdings recorded in each settlement during the year ending 30th September, 1912.

Name of estate or tract under settlement.	Number of khatian recorded in the name of—												
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.
	As private lands.	Not as private lands.						Service tenure.	Other.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Shahabad (thanas Bhabhua, Mohania and Kharghar).	23	8,526	3,534	1,456	123,326	100	2,114	3,489	6,709	15,404	1,045	167,216	5,488
Experimental Maintenance.													
Cuttack	6,318	2,033	3,781	2,999	27,441	907	386	250	220	11,812	772	56,919	3,755
Balasore	7,003	2,484	3,294	3,240	29,500	1,269	1,080	27	675	12,231	135	60,738	5,913

APPENDIX V.

Showing the progress made in Recovery of Costs during the year ending 30th September, 1912.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.							Balance.		
						Landlords' share.			Occupiers' share.			Grand Total collected.			
			Landlords' share.	Occupiers' share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.		Landlords' share.	Occupiers' share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Patna ...	Patna	17	73	90	...	...	...	73	...	73	73	17	...	17
Bhagalpur ...	Monghyr	South Monghyr	4,851	1,520	6,371	949	...	949	1,512	...	1,512	2,461	3,902	8	3,910*
Orissa ...	Cuttack ...	Bishunpur ...	4,917	5,758	10,675	4,917	...	4,917	5,758	...	5,758	10,675	...	...	...
Ditto ...	Ditto ...	Arillo and Ratagarh.	832	269	1,101	832	...	832	269	...	269	1,101	...	...	...
Chota Nagpur	Ranchi ...	Ranchi	1,46,767	89,722	2,36,489	1,05,635	13,471	1,19,106	89,638	69	89,707	2,08,813	27,661	15	27,676
Ditto ...	Manbhum	Parganas Barabhum and Patkum.	1,58,238	93,611	2,51,849	1,08,653	70	1,08,723	93,508	...	93,508	2,02,231	49,515	103	49,618

* Irrespective of the amount due from Babu Sukan Singh on account of settlement work under section 112, Bengal Tenancy Act.

APPENDIX VI.

PART A.

Statement of sales of Proprietary Rights during the past ten years the statistics of which were collected during attestation in the year ending 30th September, 1912.

Name of estate or tract under settlement.	Area under attestation during the year.	Area of villages in which statistics were collected.	Number of estates in the selected villages.	SALES OF ESTATES OR PORTIONS OF ESTATES.			WHETHER THE PURCHASER BELONGS TO THE CLASS OF—			
				Number of sales.	Land revenue transferred.	Price paid.	Landlord.	Raiyat.	Mahajan.	Lawyer.
1	2	3	4	5	6	7	8	9	10	11
	Sq. M.	Sq. M.			Rs.	Rs.				
Shahabad (thanas Bhabhua, Mohania and Kharghar.)	1,551	1,551	17,459	467	23,112	7,35,739	293	115	54	
Experimental Maintenance.										
Cuttack	238·46	8·33	121	32	3,970	25,527	25	1	6	...
Balasore	526·98	44·75	259	41	13,518	41,405	35	1	5	...

APPENDIX VI.

PART B.

Statement of mortgages during the past ten years the statistics of which were collected during attestation in the year ending 30th September, 1912.

Name of estate or tract under settlement.	Area under attestation during the year in acres.	Number of holdings attested.	AREA, IN ACRES, HELD BY MORTGAGEES—						PROFESSION OF MORTGAGEE.							
			From proprietors.	From tenure-holders and under-tenure-holders.	From raiyats at fixed rates.	From settled raiyats.	From occupancy raiyats.	From non-occupancy raiyats.	Landlord.		Raiyat.		Mahajan.		Lawyer.	
									Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Shahabad (thanas Bhabhua, Mohania and Kharghar.)	992,640	167,216	2,117	220	306	5,126	13	...	612	1,332	3,542	6,009	218	421	9	19
Experimental Maintenance.																
Cuttack	152,614	164,598	·64	·95	4·00	84·67	...	...	15	11·55	54	34·40	83	44·31	...	...
Balasore	337,267	216,687	·84	...	17·70	278·18	·37	2·89	26	26·01	172	168·66	77	105·31	...	...

APPENDIX VI.

PART C.

Statement of transfers of Occupancy Rights during the past ten years the statistics of which were collected during attestation in the year ending 30th September, 1912.

Name of district and settlement.	Area under attestation during the year in square miles.	Number of raiyati holdings attested.	Area of raiyati holdings attested in acres.	NUMBER AND AREA OF HOLDINGS TRANSFERRED.				PROFESSION OF TRANSFEREE.								NUMBER OF RAIYATS WHO STILL OCCUPY THEIR LANDS—		PRICE PER ACRE OF AREA TRANSFERRED.	
				Entire holdings.		Part holdings.		Landlord.		Raiyat.		Mahajan.		Lawyer.		On cash rents.	On produce rents.	Whole holding.	Part of holding.
				Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Shahabad (thanas Bhabhua, Mohania and Kharghar.)	1,551	126,936	379,706	218	699	422	694	52	218	540	1,063	47	109	1	3	...	...	33	53
Experimental Maintenance.																			
Cuttack ...	238·46	60,654	56,278	562	285·63	1,813	787·42	204	97·80	1,780	744·51	366	215·13	25	15·61	...	...	90	107
Balasore ...	526·98	66,671	10,580	676	570·60	1,641	1,145·81	150	169·03	1,725	1,106·18	442	439·12	3	2·08	...	...	47	57

APPENDIX VII.

(*See* Chapter IV of the Report.)

Statement showing Mutations in Tenants' Rights for the year ending 30th September, 1912.

GOVERNMENT ESTATES.

DIVISION AND DISTRICT.	ESTATE.	Total area of the estate in acres.	Total number of tenancies.	NUMBER OF MUTATIONS REGISTERED.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Patna	38 estates	48,336	7,050	50	28	231	2	24	8	10	...	315	38	5	1,442·08	11 to 300
Gaya	7 ,, ...	52,969	4,859	17	75	180	1	10	3	1	1	208	80	5·95	938·11	90
Shahabad	15 ,, ...	11,945	1,324	1	6	116	1	...	3	...	...	117	10	9·6	527	61
Tirhut Division.																
Saran	Makdhumganj ...	222	120	...	...	3	...	...	...	...	...	3	...	2·5	3·3	...
Do.	Mudha	360	235	2	1	2	...	...	...	...	...	4	1	2·12	6·3	586
Do.	Deopura	22	41	..	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Kaithwalia	12	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Bangra, pargana Chanar.	1,039	215	2	1	6	2	...	1	...	...	8	4	5	50·2	125
Darbhanga	Bakhtiarpur ...	1,111	497	7	4	13	...	...	...	...	1	20	5	5·03	74·01	100
Ditto	Hardaspur	309	1	...	...	...	..	...	...	...	...	...	...	...	...	...
Ditto	Imadpatti	144	102	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto	Maheser Chandauli	6	1	...	...	...	...	...	...	...	...	..	...	...	...	...
Bhagalpur Division.																
Monghyr	Diara and other estates.	65,764	12,477	71	40	58	21	2	3	3	...	134	64	1·5	433·20	30 to 300
Bhagalpur	Bhagalpur Diara khas mahals.	23,558	1,399	10	...	58	...	...	...	...	...	68	...	4·86	42·83	37
Ditto	Railway B. class land.	239	92	4	...	...	...	...	...	...	...	4	...	4·34	8·01	...
Ditto	Supaul khas mahals	893	231	4	...	15	...	...	...	...	...	19	...	8·2	102·58	37
Ditto	Madhipura khas mahals.	3,240	602	...	...	45	...	...	...	...	...	45	...	7·47	...	...
Purnea	4 estates	8,386	1,352	...	2	29	...	...	...	...	...	29	2	15·71	130	17 to 19
Sonthal Parganas ...	Sahebganj, Tauzi No. 599.	702	2,373	70	92	116	...	...	...	...	...	186	92	11·71	155	985
Ditto	Godda Damin, Tauzi No. 602.	250	98	..	...	3	...	...	...	...	...	3	...	3·06	19	...
Ditto	12 other estates ...	1,967	1,078	6	...	82	...	..	...	...	...	88	...	10·56	113·46	15½ to 250
Orissa Division.																
Cuttack	Banki...	75,080	35,361	274	1,031	708	1,216	125	886	26	36	1,136	3,169	12·17	624·69	142
Ditto	Town Khas Mahal...	796	1,908	45	4	71	2	1	...	11	1	128	7	7·07	37·33	2,000
Ditto	Cantonment Khas Mahal	507	522	28	9	32	2	8	...	6	2	74	13	16	16·43	3,970
Balasore	Nayanund Birso	17,987	11,572	177	141	...	...	...	...	...	...	177	141	2·75	155·06	100
Ditto	Chandbali	178	130	...	...	...	...	...	...	...	...	...	2	...	...	...
Ditto	Bhadrak Salt Gola	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Angul	Angul	577,376	32,005	2	143	788	1,263	...	...	9	8	799	1,414	7	11,290·65	53
Puri	Khurda	565,358	198,639	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Kodhar	5,277	787	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Balukhand	574	305	4	...	2	...	...	...	...	...	6	...	1·96	2·63	13,000
Sambalpur	Malguzari	126,186	6,256	15	47	158	10	5	22	6	2	184	81	4	2,016·98	30
Ditto	Gaontiahi	788,105	40,513	174	489	922	61	15	135	37	18	1,148	703	5	17,388·60	16
Ditto	Raiyatwari	6,254	252	...	...	5	...	...	...	...	...	5	...	2	...	...
Ditto	Zamindari	796,273	25,796	198	384	471	30	15	82	9	6	693	502	4	14,924·05	14
Chota Nagpur Division.																
Hazaribagh	Kodarma	38,460	2,999	...	...	41	88	...	...	...	...	41	88	4·30	1,313·34	...
Ranchi	Barkagarh	67,395	5,875	...	...	107	5	...	...	...	...	107	5	1·90	...	...
Palamau	Palamau and Baldehri.	272,372	17,130	29	18	833	398	26	43	3	...	891	459	7·88	6,652·23	21
	TOTAL ...	3,557,650·6	414,166	1,190	2,515	5,095	3,102	234	1,186	121	75	6,640	6,878	4·66	58,463·85	...

APPENDIX VII—*concluded.*

WARDS' ESTATES.

DIVISION AND DISTRICT.	ESTATE.	Total area of the estate in acres.	Total number of tenancies.	NUMBER OF MUTATIONS REGISTERED.										Percentage of mutations to total number of tenancies, col. 9 (*a*)+(*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Gaya	Maksudpur ...	77,112	5,942	10	71	207	55	...	151		5	217	282	8·3	1,902	24 to 28
Do.	Deo Raja's and Deo Rani's Estates.	61,264	9,207	70	98	265	...	60	18	27	15	422	131	6	1,015·7	15
Tirhut Division.																
Saran	Chautaria	5,516	2,411	1	5	...	...	...	...	1	...	2	5	·29	3·98	222
Do.	Khojwa	12,803	4,604	2	...	...	...	...	...	...	...	2	...	·04	3·90	89
Do.	Mosrakh	8,739	5,321	4	...	...	...	...	...	...	...	4	...	·07	4·66	144
Muzaffarpur and Champaran.	Bettiah	1,375,638	229,281	191	88	1,353	1	...	6	1	1	2,045	96	·93	1,018·14	58
Muzaffarpur	Mahtha	15,395	5,137	9	33	17	1	...	2	1	1	27	37	1·51	38·6	109
Ditto	Tamkohi	7,489	3,205	81	392	107	7	1	6	...	...	189	405	13·5	591·5	100
Ditto	Sursand (No. I) ...	14,586	6,572	14	105	224	2	...	...	...	...	238	107	5·24	551·78	106
Ditto	Do. (No. II) ...	6,004	3,026	5	43	20	...	...	4	...	...	25	47	2·37	103·42	139
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan	68,972	23,489	79	188	132	10	...	1	2	...	213	199	1·7	390·50	102
Bhagalpur Division.																
Monghyr	Ratan	5,184	4,138	66	16	2	...	2	...	...	...	70	16	2	169·3	20
Ditto	Bahadoorpur ...	51,684	9,347	245	184	1	19	5	11	1	...	252	214	5	822·74	28
Ditto	Shakarpura	9,728	2,570	48	35	...	...	2	...	...	...	50	35	3·3	39·93	72
Ditto	Chapraon	14,976	4,909	13	36	1	...	...	...	...	...	14	36	1	110·36	24
Bhagalpur	Sonbarsa	65,044	16,113	113	...	227	...	...	...	...	...	340	...	2·1	1,675·97	19
Ditto	Panjwara	21,346	2,143	3	3	59	2	...	30	2	...	64	35	4·6	472·64	41
Ditto	Lugma	7,350	1,831	10	88	18	...	...	35	...	...	28	123	8·2	250	50
Ditto	Shahpur	7,069	1,449	7	57	29	...	...	25	...	...	36	82	8·1	243	50
Ditto	Barari	65,539	25,576	84	58	15	1	...	4	...	...	99	63	·63	55·02	8
Ditto	Sukhpur	18,358	4,000	...	...	...	...	...	...	...	...	...	...	...	...	...
Sonthal Parganas ...	Sankara	51,712	146	...	...	2	...	...	...	...	...	2	...	1·36	1,118	...
Ditto	Punasi	21,542	250	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto	Garsara	10,872	197	...	...	1	...	...	...	...	...	1	...	·50	120·6	...
Ditto	Pakeur	15,911	12,094	98	112	1	...	...	...	7	1	106	113	1·81	159 3	68
Orissa Division.																
Cuttack	Dompara	53,469	7,073	47	230	191	24	2	...	1	...	241	254	7	167·68	83
Ditto	Darpan	68,727	25,288	199	420	1	...	3	...	1	...	204	420	2·46	765	61
Puri	Delang Hustabad ...	14,610	11,320	2	8	6,232	486	...	1	...	...	6,234	495	59·4	8,201·28	77
Do.	Sarbarahkari ...	37,601	592	5	31	126	10	...	20	...	...	131	61	32·4	...	...
Do.	Ditto Tenures	8,451	4,751	...	1	4,313	67	...	1	1	...	4,314	69	92·2	6,043·69	44
Do.	Parikud	42,276	6,258	12	89	4	...	...	..	...	...	16	89	1·6	118·18	24
Chota Nagpur Division.																
Ranchi	Biru	626,094	2,172	...	...	59	...	...	...	...	...	59	...	2·7	...	...
Do.	Barki Beura ...	18,592	212	...	...	4	...	...	...	...	...	4	...	1·8	...	...
Do.	Parba	34,229	170	...	...	4	...	...	...	...	...	4	...	2·3	...	...
Do.	Janampiri	6,497	262	...	...	7	...	...	...	...	...	7	...	2·6	...	...
Do.	Kana Baruhatu ...	5,518	190	...	...	2	...	...	...	...	...	2	...	1·05	...	...
Do.	Jeria	335,738	2,940	...	...	208	...	...	...	...	...	208	...	7·07	...	...
Do.	Tamar	331,220	1,057	...	...	12	...	...	...	...	...	12	...	1·1	...	...
Do.	Mardhan	18,992	397	...	...	3	...	...	...	...	...	3	...	·7	...	...
Do.	Loahatu	8,329	427	...	...	23	...	...	...	...	...	23	...	5·3	...	...
Do.	Barenda	52,617	678	...	...	34	...	...	...	...	...	34	...	5·01	...	...
Do.	Sarjamdih	39,861	752	...	...	20	...	...	...	...	...	20	...	2·6	...	...
Do.	Armai	265,258	3,235	...	...	49	...	...	...	...	...	49	...	1·5	...	...
Do.	Chakla	5,901	303	...	...	2	...	...	...	...	...	2	...	·6	...	...
	Total ...	3,994,573	451,035	1,418	2,391	14,475	685	75	315	45	23	16,013	3,414	7·08	26,651·15	...

APPENDIX VIII.

[*See* Chapter IV of the Report.]

Statement showing Resettlement of Vacant Tenancies during the year ending 30th September, 1912.

GOVERNMENT ESTATES.

DIVISION AND DISTRICT.	ESTATE.	VACANT TENANCIES TO BE RESETTLED DURING THE YEAR.		VACANT TENANCIES RESETTLED DURING THE YEAR.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
Patna Division.					
Patna	Government estates	26	51	26	51
Gaya	Ditto ...	135	358	130	356
Shahabad	Ditto ...	...	1	...	1
Tirhut Division.					
Darbhanga	Bukhtiarpur ...	3	·39	3	·39
Bhagalpur Division.					
Monghyr	Diara estates ...	...	...	6	21
Bhagalpur	Bhagalpur Diara, Tauzi No. 346.	4	26	4	26
Ditto	Supaul Khas Mahals	1	2	1	2
Sonthal Parganas ...	Government estates	6	4	6	4
Orissa Division.					
Cuttack	Banki ...	64	58	64	58
Balasore	Nayananda Birso...	1	1	...	...
Angul	Angul ...	134	600	90	354
Puri	Khurda ...	5	6	3	2
Sambalpur	Malguzari ...	1	66	1	17
Ditto	Gaontiahi ...	18	123	10	47
Ditto	Zamindari ...	23	210	1	5
Chota Nagpur Division.					
Hazaribagh ...	Kodarma ...	7	16	6	14
Palamau	Palamau and Baldehri.	471	2,147	390	1,747
Ranchi	Barkagarh ...	...	...	3	11
	Total ...	899	3,669·39	744	2,716·39

APPENDIX VIII—*concluded.*

Wards' Estates.

Division and District.	Estate.	Vacant tenancies to be resettled during the year.		Vacant tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
Patna Division.					
Gaya	Maksudpur ...	435	1,666	417	1,615
Do.	Deo Raja's and Deo Rani's estates.	38	105	27	99
Tirhut Division.					
Saran	Mashrakh ...	6	19	3	16
Do.	Majhauli ...	2	1	2	1
Do.	Chautaria ...	1	3	1	3
Do.	Khojwa ...	15	26	4	17
Muzaffarpur and Champaran.	Bettiah ...	217	476	263	588
Muzaffarpur ...	Mahtha ...	82	67	14	8
Ditto	Tamkohi ...	60	153	4	8
Ditto	Sursand (I) ...	97	163	71	138
Ditto	Sursand (II) ...	13	18	5	11
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	183	192	9	57
Bhagalpur Division.					
Monghyr	Ratan ...	152	49	38	156
Ditto	Bahadoorpur ...	700	2,712	138	419
Ditto	Shakarpura ...	50	487	24	50
Ditto	Ghapraon ...	148	957	6	20
Bhagalpur	Panjwara ...	138	816	96	288
Ditto	Lugma ...	4	4	4	4
Ditto	Sonbarsa ...	411	1,198	254	1,065
Ditto	Shahpur ...	19	36	19	36
Ditto	Barari ...	91	236	5	6
Ditto	Sulihpur ...	126	216	10	23
Sonthal Parganas ...	Pakour ...	244	104	8	1
Orissa Division.					
Cuttack	Dompara ...	10	11	10	11
Ditto	Darpan ...	110	150	49	55
Puri	Delang (Hustabad Sarbarahkari).	4	·95	...	...
Do.	Parikud ...	20	26	13	15
	Total ...	3,376	9,891·95	1,494	4,710

APPENDIX IX.

[*See* Chapter IV of the Report.]*

Statement showing New Settlements of Waste Lands during the year ending 30th September, 1912.

GOVERNMENT ESTATES.

DIVISION AND DISTRICT.	ESTATE.	Total number of new tenancies in lands settled.	Total area of such tenancies (acres).	REMARKS. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates	132	245	Settlement rates.
Gaya ...	Ditto ...	132	152	Prevailing rates of the adjoining lands.
Shahabad ...	Ditto ...	1	27½ poles	Otherwise.
Tirhut Division.			B. K. D.	
Darbhanga ...	Bukhtiarpur ...	1	0 12 5	Settlement rates.
Ditto ...	Balukhand ...	1	0 1 0	Otherwise.
Bhagalpur Division.				
Monghyr ...	Town Khas Mahals and Diara estates.	210	750	Settlement rates.
Bhagalpur ...	Khas Mahal Madhepura, Tauzi No. 2781.	15	10	Otherwise.
Ditto ...	Supaul Khas Mahal, Tauzi No. 3854.	92	691	
Purnea ...	Belwa Harinkhori ...	25	36	
Ditto ...	Sahonia Subhai ...	4	13	
Sonthal Parganas	Government Estates	1	5 bighas	Settlement rates.
Orissa Division.				
Cuttack ...	Banki	198	8	Settlement rates.
Angul ...	Angul	305	732	
Puri ...	Khurda ...	560	510	Settlement village rates.
Do. ...	Balukhand ...	2	·52	Otherwise.
Sambalpur ...	Malguzari ...	71	111	
Ditto ...	Gaontiahi ...	539	554	
Ditto ...	Raiyatwari ...	4	2	Settlement rates.
Ditto ...	Zamindari ...	1,450	1,824	Otherwise.
Chota Nagpur Division.				
Hazaribagh ...	Kodarma ...	67	215	Mostly at settlement rates.
Ranchi ...	Barkagarh ...	17	47	Otherwise.
Ditto ...	Patia	3	27	
Palamau ...	Palamau and Baldehri	150	161	Settlement rates.
	Total ...	3,980	6,088·52 B. K. D. 5 13 5 and 27½ poles.	

APPENDIX IX—*concluded.*

Wards' Estates.

Division and District.	Estate.	Total number of new tenancies in lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Gaya ...	Maksudpur ...	193	199	Otherwise.
Do. ...	Deo Raja's and Deo Rani's Estate.	41	69	Otherwise.
Tirhut Division.			B. K. D.	
Saran ...	Chautaria ...	1	0 0 10	Otherwise.
Do. ...	Mashrakh ...	1	1 2 1	Settlement rates.
Do. ...	Majhauli ...	1	0 1 1	Otherwise.
Muzaffarpur and Champaran.	Bettiah ...	297	842	Prevailing rates of the adjoining lands.
Muzaffarpur ...	Mahtha ...	3	18	Otherwise.
Ditto ...	Tamkohi ...	6	8	Prevailing village rates.
Ditto ...	Sursand No. I ...	50	11	Otherwise.
Ditto ...	Ditto „ II ...	18	5	Otherwise.
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	28	21	Settlement rates.
Bhagalpur Division.				
Monghyr ...	Ratan ...	6	8	Settlement rates.
Ditto ...	Bahadoorpur ...	54	53	Settlement rates.
Ditto ...	Shakerpura ...	11	18	Settlement rates.
Ditto ...	Chapraon ...	2	5	Settlement rates.
Bhagalpur ...	Sukhpur ...	16	42	Otherwise.
Ditto ...	Panjwara ...	32	55	Otherwise.
Ditto ...	Lugma ...	4	1	Otherwise.
Ditto ...	Shahpur ...	6	2	Otherwise.
Ditto ...	Sonbarsa ...	334	1,014	Otherwise.
Ditto ...	Barari	93	111	Otherwise.
Sonthal Parganas	Surkara ...	1	·09	Otherwise.
Ditto ...	Pakour ...	47	42	Settlement rates.
Ditto ...	Garsara ...	2	4	Settlement rates.
Orissa Division.				
Cuttack ...	Darpan ...	79	78	Settlement rates.
Puri ...	Delang-Hustabad ...	219	36	Otherwise.
Do. ...	Do. Sarbarahkari tenures.	145	25	Otherwise.
Do. ...	Parikud ...	7	·73	Settlement rates.
	Total ...	1,697	2,667·82 and B. K. R. 1 3 12	

APPENDIX X.

[*See* Chapter IV of the Report.]

Statement showing the results of the inspection of rent-rolls for the year ending 30th September, 1912.

GOVERNMENT ESTATES.

DIVISION AND DISTRICT.	ESTATE.	Total number of villages in the estate.	Total number of tenants.	CHECK BY TAHSILDARS AND OTHER SUBORDINATE AGENCY.				CHECK BY MANAGERS AND OTHER SUPERIOR AGENCY.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government estates	50	7,064	80	6,202	87·8	314	63	1,897	26·8	162
Gaya	Ditto ...	101	5,222	101	5,222	100	97	72	3,476	66·5	...
Shahabad	Ditto ...	15	1,324	...	...	...	...	15	1,324	...	92
Tirhut Division.											
Saran	Mukhdumganj, Tauzi No. 5762.	3	120	3	120	100	...	3	120	100	...
Do.	Mudha Tauzi No. 5763.	2	235	2	235	100	...	2	235	100	...
Do.	Ramdaschak, Tauzi No. 5759.	2	9	2	9	100	...	...	...	...	...
Do.	Deopura, Tauzi No. 469.	1	41	1	41	100	...	...	...	...	...
Do.	Kaithwalia, Tauzi No. 3364.	1	8	1	8	100	...	...	...	...	...
Do.	Bangra Pargana, Chauhar, Tauzi No. 1850.	8	215	8	215	100	...	...	...	...	...
Darbhanga ...	Bukhtiarpur	3	497	3	497	100	..	3	497	100	...
Ditto	Hardaspur ...	1	1	1	1	100	...	1	1	100	...
Ditto	Imadputti	1	102	1	102	100	...	1	102	38	...
Ditto	Mahesur Chandonli ...	1	1	1	1	...	...	1	1	1	...
Bhagalpur Division.											
Monghyr	Town Khas Mahals and diara estates.	94	12,450	69	6,212	49·8	495	49	633	5·08	3
Bhagalpur	Diara Khas Mahal ...	6	1,407	6	1,407	100	57	6	1,407	100	57
Ditto	Sadar Khas Mahal ...	7	25	7	25	100	2	7	25	100	
Ditto	Railway 'B' Class land	21	92	21	92	100	5	21	92	100	5
Ditto	Supaul Khas Mahal ...	19	323	19	323	100	...	19	323	100	...
Ditto	Madhupura Khas Mahal.	14	603	14	603	25	...	14	603	20	45
Purnea	Belwa Horinkhori ...	3	1,103	2	750	69·99	50	1	182	16·50	10
Do.	Bagmara	9	104	9	75	72·11	16	...	...	...	...
Do.	Sahonia Subhai ...	4	37	4	30	81·08	1	...	...	...	...
Sonthal Parganas...	Amanat Sarkar Sarfarajganj.	1	177	1	177	100	...	1	49	27·68	...
Ditto	Amanat Sarkar Madili	1	158	1	158	100	...	1	14	8·86	...
Ditto	Gridline Fudkipur ...	3	73	3	73	100	...	1	5	6·85	...
Ditto	Jagir Nathu Hawildar	1	15	1	15	100	...	...	...	...	...
Ditto	Syed Amanat Sarkar...	1	83	1	83	100	...	1	5	6·02	...
Ditto	Naya Bazar	1	27	1	27	100	...	...	...	...	...
Ditto	Railway " B " Class land.	9	127	9	127	100	...	6	51	40·15	...
Ditto	Bijoypur relinquished station land.	1	6	1	6	100	...	...	...	...	...
Ditto	Sahebganj, Tauzi No. 599.	8	2,373	8	2,373	100	113	8	270	11·38	...
Ditto	Other Khas Mahal, Tauzi No. 117.	2	50	2	50	100	...	...	...	...	...
Orissa Division.											
Cuttack	Banki	144	23,490	126	13,215	56·25	847	122	3,533	15·04	1,275
Ditto	Town Khas Mahal ..	35	3,181	35	3,181	100	40	35	736	23·19	...
Ditto	Cantonment Khas Mahal.	13	522	13	181	34·67	94	11	54	10·34	...
Balasore	Nayanand Birso ...	104	11,572	...	...	...	...	...	...	...	...
Ditto	Chandbali	1	130	...	...	...	...	...	...	...	...
Ditto	Bhaurak salt gola ...	1	1	...	...	...	...	...	...	...	...
Angul	Angul	632	32,005	609	31,208	98	1,428	124	6,406	20	126
Puri	Kodhar	18	787	5	787	100	...	5	45	5·72	...
Do.	Balukhand	1	305	1	305	100	...	1	44	14·42	...
Sambalpur ...	Malguzari	116	6,286	116	5,828	93	202	64	1,826	29	19
Ditto	Gaontiahi	811	40,513	811	37,389	92	1,731	296	13,276	32	247
Ditto	Raiyatwari	16	252	16	245	97	5	2	48	19	...
Ditto	Zamindari	994	25,796	994	23,552	88	1,107	210	4,938	19	202
Chota Nagpur Division.											
Hazaribagh ...	Kodarma	101	2,999	27	1,165	38·84	234	9	364	12·13	68
Ranchi	Barkagarh	89	5,875	42	112	1·90	...	...	...	...	...
Do.	Patia	8	693	...	...	...	...	...	...	...	...
Do.	Silam	1	178	...	...	...	...	...	...	...	...
Palamau	Palamau and Baldehri	399	17,130	399	17,130	100	...	104	4,962	28·97	...
	Total ...	3,908	205,677	3,577	157,557	88	6,838	1,279	47,544	39·47	2,363

APPENDIX X—*concluded.*

WARDS' ESTATES.

DIVISION AND DISTRICT.	ESTATE.	Total number of villages in the estate.	Total number of tenants.	CHECK BY TAHSILDARS AND OTHER SUBORDINATE AGENCY.				CHECK BY MANAGERS AND OTHER SUPERIOR AGENCY.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Gaya	Maksudpur	79	5,942	43	3,386	56·9	40	10	607	10·2	12
Do.	Deo Raja's and Deo Rani's Estates	65	9,207	...	...	...	...	45	8,163	88 6	...
Tirhut Division.											
Saran	Chautaria	36	2,411	20	1,319	54·7	7	4	11	·4	...
Do.	Khojwa	49	4,604	27	2,332	50·65	2	1	2	·4	...
Do.	Masrakh	52	5,321	30	2,541	47·75	4	11	22	·4	...
Muzaffarpur and Champaran.	Bettiah	1,859	20,142	63	7,467	37	1,852	14	1,788	8·8	101
Muzaffarpur, Patna Darbhanga and Monghyr.	Narhan	196	23,489	193	23,015	97·9	2,221	25	3,491	14·4	309
Muzaffarpur ...	Mahtha	84	5,137	63	2,498	48·62	142	11	265	5·15	15
Ditto ...	Tamkohi ...	77	3,206	60	2,495	77·82	227	22	915	28·5	...
Ditto ...	Sursand (No. I) ...	157	6,572	157	6,572	100	...	31	1,845	28·07	19
Ditto ...	Ditto (No. II) ...	88	3,026	88	3,026	100	...	15	545	18·01	7
Bhagalpur Division.											
Monghyr	Ratan	176	4,138	176	4,138	100	...	176	4,138	100	...
Ditto	Bahadoorpur	41	9,347	41	9,347	100	...	41	9,347	100	...
Ditto	Shakerpura	21	2,570	21	2,570	100	...	21	2,570	100	...
Ditto	Chapraon	102	4,909	102	2,945	60	...	102	4,909	100	...
Bhagalpur	Sonbursa	122	16,113	122	16,113	100	...	122	16,113	100	...
Ditto ...	Sukhpur	42	4,000	23	500	12·5	86	23	100	2·5	16
Ditto ...	Panjwara	49	2,143	49	1,409	65	...	49	1,409	65	...
Ditto ...	Lugma	22	1,831	22	1,831	100	...	22	1,831	100	...
Ditto ...	Shahpur	27	1,449	27	1,449	100	...	27	1,449	100	...
Ditto ...	Barari	608	25,576	608	15,469	60	...	138	7,004	27·3	...
Sonthal Parganas	Pakaur	82	12,094	82	12,094	100	35	35	3,284	27·15	8
Orissa Division.											
Cuttack	Dompara	28	6,620	28	6,620	100	432	20	412	6·2	...
Ditto	Darpan	373	25,288	217	15,004	59·33	218	105	1,659	6·56	47
Puri	Delang Hustabad ...	120	11,320	...	...	...	...	64	6,713	9·3	...
De.	Do. Sarbarahkari	115	592	...	...	...	...	20	136	22·9	...
Do.	Sarbarahkari Tenure	55	4,751	...	...	...	...	20	4,380	92·1	...
Do.	Parikud	65	6,258	7	63	1	...	1	30	4	...
Chota Nagpur Division.											
Ranchi	Biru	187	2,172	100	1,200	55·2	59	12	150	6·9	...
Do.	Budra	9	212	6	120	56·6	4	2	30	14·2	...
Do.	Purba	39	170	21	92	54·1	4	2	20	11·8	...
Do.	Janampiri	22	262	12	200	76 3	7	1	15	5·8	...
Do.	Kana Baruhatu ...	9	190	6	104	54·7	2	1	10	5·3	...
Do.	Jeria	280	2,940	170	1,612	54·8	208	16	160	5·4	...
Do.	Tamar	79	1,057	41	600	56·8	12	4	55	5·2	...
Do.	Mardhan	22	397	13	202	50·9	3	1	22	5·5	...
Do.	Loahatu...	10	427	6	225	52·7	23	1	25	5·9	...
Do.	Tarai	13	223	7	130	58·3	1	1	15	6·7	...
Do.	Baranda	22	678	12	350	51·6	34	2	42	6 2	...
Do.	Sarjamdih	34	752	18	394	52·4	20	3	48	6·4	...
Do.	Armai	125	3,235	68	1,768	51·6	49	7	176	5·4	...
Do.	Chakla	5	303	3	202	66·7	2	1	22	7·3	...
	Total ...	5,646	241,074	2,752	151,402	59·81	5,694	1,239	83,928	28·62	528

APPENDIX XI.

[*See* Chapter V of the Report.]

Result of Inspection of Boundary Marks during the year ending the 30th September, 1912.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT AND TEMPORARILY-SETTLED ESTATES.										
Patna Division.										
Patna	41	22	575	573	568	2	3	...	.....	...
Gaya	21	21	1,562	1,562	1,533	...	29	3	.....	...
Shahabad ...	155	49	781	781	779	...	2*	...	.....	...
Tirhut Division.										
Saran	21	8	300	300	300	...	...	...	.....	...
Champaran ...	Not reported.	Not reported.	Not reported.	82	76	2	4	...	.....	...
Darbhanga ...	3	3	Not reported.	71	71	...	...	...	.....	...
Bhagalpur Division.										
Bhagalpur ...	27	26	98	64	44	12	8	12†	Rupees 12. Met from Khas Mahal funds.	...
Sonthal Parganas ...	8‡	8	4,233	1,642	1,636	3	3	7§	Rupees 5-12. Cost realized from the villagers.	...
Orissa Division.										
Cuttack ...	Not reported.	Not reported	9,248	549	548	...	1	1	Cost borne by the Settlement Department.	...
Balasore ...	Not reported.	1,550	7,005	3,331	3,142	11	178	102		
Puri	Not reported.	Not reported.	3,798	825	799	26	...	...	.....	...
Angul	1	2	2,637	1,206	1,170	29	7	30	Rupees 88 ...	...
Sambalpur ...	1,937‖	1,609	59,108	59,108	58,932	172	4	176	.....	...
Chota Nagpur Division.										
Hazaribagh ...	3¶	3	2,078	1,293	1,293	...	...	...	.....	...
Ranchi	3	3	419	354	349	5	...	5	.....	...
Palamau ...	2	2	17,125	17,125	13,063	3,951	111	4,062	Rupees 45 ...	A jaigirdar tenant was fined Rs. 1 for encroachment upon the boundary limits of a Government village.
Singhbhum ,,	1	1	2,730	2,248	2,065	183	...	5**	Rupees 17-14-3. Met from Kolan Estate improvement grant.	...
Total ...	2,223	3,607	1,11,697	91,114	86,368	4,396	350	4,403		

* Diluviated by the action of the river Ganges.
† Of the damaged and missing stones, five could not be re-erected in position as they had been diluviated by the action of the river Ganges.
‡ Surveyed under Regulation III of 1872.
§ Includes the restoration of three marks found damaged or missing during last year.
‖ Surveyed under section 27 of the Land Revenue Act of the Central Provinces.
¶ Two of these estates are now under survey.
* * These marks were found damaged last year.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
Patna Division.				WARDS' ESTATES.						
Patna	315	314	1,451	...	...	...	...	...	.....	...
Gaya	92	97	816	816	781	2	33	5	Restored at the cost of the Wards' Estates.	...
Tirhut Division.										
Saran	247	247	1,818	1,571	1,536	30	25	8	.....	One case for damaging boundary marks was instituted in the Criminal Court. It has not yet been decided.
Champaran ...	1,692	1,692	Not known	9,487	7,155	1,418	914	...*	.....	...
Darbhanga ...	196	196	1,048	1,048	976	...	72	54	Rupees 261 ...	...
Bhagalpur Division.										
Bhagalpur ...	293	282	1,470	1,470	1,417	14	39	...	.....	...
Sonthal Parganas ...	4†	4	508	508	508	...	...	3‡	Cost met from the amount realized last year from the villagers.	...
Orissa Division.										
Cuttack ...	2	2	419	419	411	...	8	...	.....	...
Chota Nagpur Division.										
Ranchi	37	37	1,466	1,466	1,466	...	...	...	.....	...
Total ...	2,878	2,871	8,996	16,785	14,230	1,464	1,091	70		
Patna Division.				ZAMINDARI ESTATES.						
Gaya	209	209	2,374	1,717	309	997	411	...	.....	...
Tirhut Division.										
Saran	5,965	5,965	Not known	15,068	12,792	1,467	809	36	.....	...
Champaran ...	Not reported.	Not known	Ditto	2,818	2,535	114	169	...	.....	...
Bhagalpur Division.										
Bhagalpur ...	2,375	2,386	3,995	3,202	3,134	...	68	...	.....	...
Sonthal Parganas ...	471	471	14,590	1,160	1,051	71	38	17	Rupees 31. Realized from the villagers.	...
Chota Nagpur Division.										
Ranchi	1	1	5,710	5,710	5,680	22	8	10	.....	...
Singhbhum ...	2	2	4,663	3,595	3,570	24	1	...	.....	...
Total ...	9,023	9,034	31,332	33,270	29,071	2,695	1,504	63		
Grand Total ...	14,124	15,512	1,52,025	1,41,169	1,29,669	8,555	2,945	4,535		

* Stone pillars have been sent out to the Thikadars both European and native, as well as to the Tahsildars to replace missing stones. Rupees 1,684-7-3 were paid on account of these stones.

† Surveyed under Regulation III of 1872.

‡ These marks were found missing during last year.

N.B.—The figures against "Total" and "Grand Total" in columns 2 to 4 are not complete for want of figures in certain cases.

APPENDIX XII.

Statement showing progress of Survey and Settlement work in the Province by districts and divisions up to 30th September, 1912.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September 1912 (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September 1912 (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	1,936	119	2,055	1,936	119	2,055	...	...	...	...	...	...
Gaya	4,620	92	4,712	719	92	811	78	...	78	3,823	...	3,823
Shahabad	4,162	211	4,373	1,626	116	1,742	142	78	220	2,394	17	2,411
Divisional Total ...	10,718	422	11,140	4,281	327	4,608	220	78	298	6,217	17	6,234
Tirhut Division.												
Saran	2,633	41	2,674	2,439	41	2,480	194	...	194	...	...	...
Champaran	3,528	3	3,531	3,247	3	3,250	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,303	40	3,343	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	12,473	115	12,583	11,991	44	12,035	482	71	553	...	...	...
Bhagalpur Division.												
Monghyr	3,740	95	3,835	3,720	95	3,815	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	263	4,994	4,731	14	4,745	...	249	249	...	...	...
Sonthal Parganas ...	4,087	1,383	5,470	3,983	1,168	5,151	...	...	...	104	215	319
Divisional Total ...	16,674	1,783	18,457	16,150	1,319	17,469	420	249	669	104	215	319
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	335	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	669	669	...	233	233	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	..	463	463	...	375	375
Divisional Total ...	2,238	11,526	13,764	666	9,655	10,321	1,416	696	2,112	156	1,175	1,331
Chota Nagpur Division.												
Hazaribagh	6,857	164	7,021	1,506	56	1,562	...	52	52	5,351	5	5,407
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau	4,231	613	4,844	...	294	294	28	319	347	4,203	..	4,203
Manbhum	3,872	275	4,147	934	...	934	...	...	...	2,938	75	3,213
Singhbhum	2,572	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	24,636	3,007	27,643	11,879	1,563	13,442	265	1,113	1,378	12,492	331	12,823
Provincial ...	66,739	16,853	83,592	44,967	12,908	57,875	2,803	2,307	5,010	18,969	1,738	20,707

N.B.—The areas shown in this Appendix are approximate.

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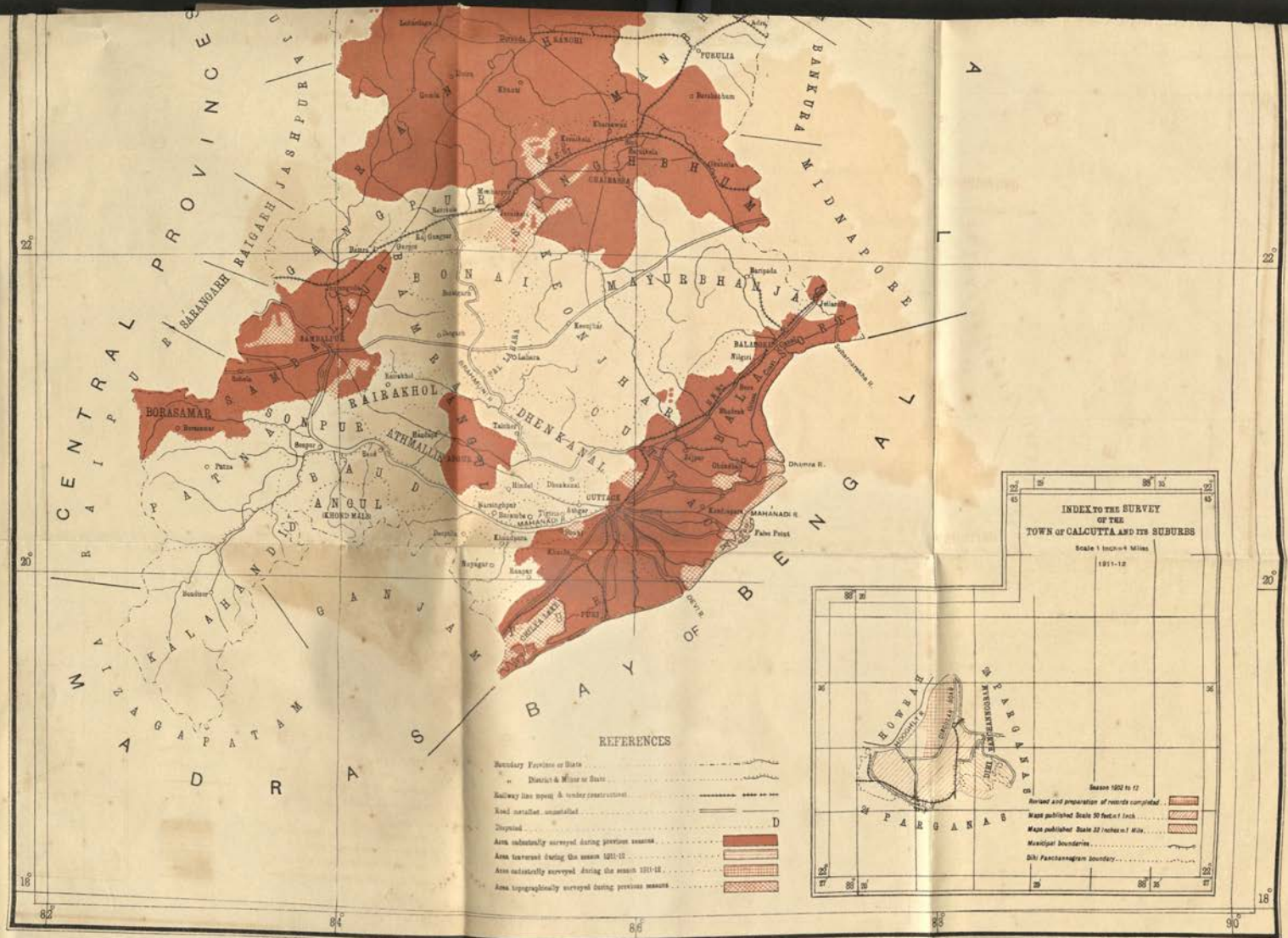
SURVEY MAP

THE PROVINCE
OF
BIHAR AND ORISSA
Scale 1 Inch = 32 Miles, or 1:2,027,520.
NOTE.—The longitudes are referrible to the Greenwich meridian
NEPÁL
BENGAL
U. P. A. & OUDH
GORAKHPUR
BALLIA
GHAZIPUR
BENARES
MIRZAPUR
DARJEELING
JALPAIGURI
DINAJPUR
MALDA
MURSHIDÁBÁD
BIRBHUM
BURDWAN
MUTIHARI
MUZAFFARPUR
DARBHANGA
CHAPRA
SARAN
SHAHÁBÁD
PATNA
GAYA
HAZARIBAGH
MONGHYR
BHAGALPUR
PURNEA
SONTHAL PARGANA
DUMKA
DALTONGANJ
BAZARISAGH
GANGES R.
KOSI R.
82°
84°
86°
88°
90°
28°
26°
24°



Zinco. by Vandyke Process in S. D. O.

No.————.
T. R.—7

FROM

LIEUT.-COL. R. T. CRICHTON, C.I.E., I.A.,
Director of Surveys, Bihar and Orissa,

TO

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA.

Dated Dinapore, the 15th November 1912.

SIR,

I HAVE the honour to submit my report on the Survey Operations in Bihar and Orissa for the survey year ending 30th September 1912.

2. I have been in charge for the whole period under report, except for 17 days (13th to 29th February 1912) when I was on deputation to the Madras Government, and Mr. A. W. Smart officiated for me.

3. The outturn of 2,962 square miles of Traverse Survey (not counting the Ganges Diara Special Survey) is fully up to programme.

4. The cost rate of Rs. 33-7 per square mile for Hazaribagh is Rs. 3-2 higher than last year's rate, which is due, partly to the work being more intricate and requiring more traverse stations per square mile, and partly to the establishment suffering severely from malarial fever at the commencement of the season. The rate is however very near the final rate for the whole district, which proves to be Rs. 33-2 per square mile and which may be considered satisfactory. The cost rate of Rs. 33-1 for Gaya is just about what was expected and is very satisfactory considering that the season's outturn of 1,080 square miles really covers 1,470 square miles and is interspersed with villages previously surveyed, all of which had to be connected to, and the values of the old stations converted to the values of the present survey.

The rate of Rs. 11-6 per square mile in Shahabad is for block surveying in the Sone River which is much simpler than village traversing. The final rate for Shahabad proves to be 33·7 per square mile as against 35·7, which was the anticipated rate.

It may also be noted that all the expenditure of the year under report is a little above normal, as it includes the cost of giving retrospective effect to the reorganization scheme of the Ministerial and Menial Establishments which was sanctioned during the year.

5. No innovation of any importance have been effected during the year.

CHAPTER II.

PART I.—REPORTS ON SURVEYS IN TEMPORARILY-SETTLED AND GOVERNMENT ESTATES UNDER SETTLEMENT OF RENTS AND LAND REVENUE.

Nil.

PART II.—REPORTS ON SURVEYS IN PRIVATE ESTATES.

HAZARIBAGH DISTRICT.

Traverse Survey.

6. The season's programme comprised Thanas Danwa, Chatra, Gidhaur, Hunterganj, Partabpur, Simaria, Tandwa, and Barkagaon, and was notified in Government Notification No. 510, dated 30th January 1911.

7. The area traversed was 1,720 square miles and comprises 1,430 villages.

133062

8. There are 41,948 new theodolite stations which are marked by 234 old masonry pillars, 32,359 local stones, 3,845 *in situ* marks on rocks and 5,510 wooden pegs along disputed boundaries.

9. The traverses were connected with 5 Great Trigonometrical Stations and 10 Topographical Stations, and 251 Azimuths have been observed. The old Traverse Stations of the 1893-94 survey of Gaya and of the 1895-96 survey of Palamau were used as common stations.

10. The season's work has been plotted on 2,510 sheets on the 16″-1 mile scale, 105 rough plots on 4″ scale and 32 reductions on 2″ scale. The computations have been completed in every respect and all plots despatched to the Settlement Officer and there are absolutely no arrears of work.

11. No demarcation had apparently been done beforehand, but the people gave willing assistance during the survey and no difficulties on this account were experienced.

Gaya District.

Traverse Survey.

12. The programme, comprising the unsurveyed portions of Thanas Nabinagar, Aurangabad, Daudnagar and Arwal, was gazetted in Government Notification No. 923 T.R., dated 19th June 1911.

13. The area traversed is 1,080 square miles and comprises 1,845 villages.

14. The intersection of north latitude 24° 45′ 00″ and east longitude 85° 00′ 00″ has been selected as the origin of survey for this district.

15. There are 20,103 new theodolite stations which have been marked by 442 masonry pillars, 2,888 stone prisms and 15,251 wooden pegs, also 418 old cylinders, 667 local stones and 437 marks on rocks.

16. Connection has been made with 4 stations of the Great Trigonometrical Survey and the angular work checked against 128 observations for Azimuths.

17. The 4 Thanas under survey are interspersed with numerous villages of the Tikari Wards Estate, Deo Estate, *etc.*, which had been previously surveyed, and which therefore did not require to be retraversed. The area of these villages is about 390 square miles, and as it was necessary to convert the values of all the old stations into terms of the present computations and plot the same, the extra amount of work entailed was very considerable.

18. At the close of the field season it was found that 5 villages of Thana Sherghati had been transferred to Thana Aurangabad. Two of these have been traversed, but information regarding the remaining three was not received until after the establishment had left the field, and they will have to be dealt with early next season.

19. With the exception of these three villages, there are absolutely no arrears. The computations are complete in every respect and the season's outturn, which has been plotted on 2,177 sheets on the 16″ scale, 85 rough plots on 4″ scale and 31 sheets of 2″ reductions, has been made over to the Settlement Department.

20. Demarcation was good and was generally found completed in advance of the Traverse Survey.

District Shahabad.

Traverse Survey.

21. The only area remaining to complete this District was 162 square miles of the Sone River. This tract was traversed early in the season and the plots supplied at once to the Settlement Department so as to permit of the detail survey being undertaken during the same season.

22. There are 861 new stations marked by 12 stone prisms, 25 galvanized cylinders (used along the Palamau boundary in order to ensure easy connection when the adjoining tracts of that district come under survey), 112 local stones, 711 wooden pegs and one mark on rock. Azimuths were observed at 5 stations.

23. The plots on 149 sheets on 16″ scale, 16 rough plots on 4″ scale and 7 reductions on 2″ scale were, as noted above, made over to the Settlement Department. There are no arrears of work.

PART III.—REPORT ON MISCELLANEOUS SURVEYS.

District Bhagalpur.

24. *Mohanpur-Shankarpur Boundary Dispute.*

The demarcation of the boundary between Mouza Shankarpur, a private estate, and the Government Estate Mohanpur, was ordered in Board's letter No. 1972 A., dated the 23rd June 1911.

In April 1910, a passed student of the Sibpur Engineering College was deputed by the Collector to demarcate the boundary according to the Revenue Survey of 1846-48 and laid down three pillars. According to the boundary thus laid down Government was said to be in wrongful possession of 145·94 acres. The Commissioner suggested to the Board that this land should be given up, and the Board agreed provided that the student-Engineer's work was verified. The survey was started from an undisputed old trijunction point in village Bhagwatipur in the upland and closed on the main traversing of district Bhagalpur, and the Revenue Survey boundary of 1846-48 relaid when it was found that the student-Engineer's work was defective. The limits of land in the present possession of Government were also surveyed and mapped, and Government was found to possess 68·50 acres in excess of its rights, and the proprietor of Shankarpur was also found to be in wrongful possession of 19·50 acres. The difference of 49 acres is all that Government should restitute as against 145·94 acres determined by the student-Engineer.

The sites for 14 pillars have been fixed by Offsets and pointed out to the Khas Mahal Kanungo and the representative of the other party concerned, and their signatures taken on the field books. The Collector will make the necessary arrangements for the permanent marking of the sites.

There were in all 40 traverse stations and 9·5 miles of chaining. The length of actual boundary relaid was 1·55 miles. The work was commenced on 1st February 1912 and completed on 31st March 1912.

Copies of traverse tables and field books, and a 4″ tracing, showing the Revenue Survey boundary, Engineer's line of demarcation and the present possession of Government, with the disputed areas have been supplied to the Collector. The cost was met, half from Provincial Grant, and half from a deposit in the treasury.

25. *Mohanpur-Faridpur and Rattipur (Bairia).*

This dispute was in continuation of the Mohanpur-Shankarpur dispute and the survey was undertaken at the request of the Collector of Bhagalpur, *vide* his letter No. $\frac{3866}{53\text{-}7\text{-}18}$, dated the 1st November 1911.

The portions of the boundaries of Mouzas Faridpur and Rattipur (BAIRIA), adjoining the Government Estate, Mohanpur, have been demarcated according to the Revenue Survey of 1846-48, and the sites for 39 pillars have been fixed thereon.

A combined tracing with the Shankarpur case was prepared on which the limits of Government's present possession were shown. All discrepancies between actual possession and the Revenue Survey boundary were surveyed and entered on the trace.

The Collector has been asked to arrange for the building of permanent pillars.

The work was commenced on 1st April and completed on 20th April 1912. There were 38 traverse stations and 7·1 miles of chaining. Length of actual boundary relaid was 3·90 miles.

Copies of traverse tables, field books and 4″ tracing have been supplied to the Collector.

The cost was met from a deposit in the Treasury.

District Bhagalpur.

Bhawanipur-Jhalari.

26. At the instance of the Collector of Bhagalpur, *vide* his letters No. $\frac{4250}{53\text{-}7\text{-}14}$, dated the 23rd November 1911 and No. $\frac{88}{53\text{-}C\text{-}2}$, dated the 10th April 1912, the northern and western boundaries of Mouza Bhawanipur Jhalari, adjoining Bhalooahi, Rajpur Sirsundee and Jujhari were demarcated according to the Revenue Survey maps of 1847.

The work was connected with Gangura G. T. Station. The sites for 38 pillars were fixed along 2·25 miles of boundary relaid, and the Collector has been asked to arrange for the permanent marks.

There were 34 traverse stations and 7·5 miles of chaining. Work was commenced on 14th March 1912 and completed on 30th April.

Copies of traverse records and 4″ tracing have been supplied to the Collector.

Cost of survey was met from a deposit in the Treasury.

District Sambalpur.

Phuljhar, Borasambar and Ghens boundary dispute.

27. The Deputy Commissioner of Sambalpur, in his letter No. 1413R., dated the 23rd June 1911, asked for the demarcation of the boundary between the Phuljhar Estate of Raipur District, Central Provinces, and the Borasambar and Ghens estates in district Sambalpur.

At first the three zamindars agreed to have the boundary demarcated according to the Topographical Survey maps of 1855-65, but, later, Mr. A. K. Smith, Assistant Commissioner, Raipur, was appointed arbitrator, and the boundary, as demarcated and pointed out by him, was surveyed. The River Kirar formed the boundary for nearly 31 miles, and for the rest the boundary ran along the ridges of hills covered with dense jungles and hills ranging in height from 1,500 to 2,300 feet.

The traverse started from Lolam Topo station and, *en-route*, connected, Pida, Chandragiri and Jhanji Topo stations, and all prominent hill-tops and passes, and closed on Ghens Topo V. S.

The sites for 416 pillars were fixed and marked with wooden posts and cairns of stones.

There were 591 traverse stations and 73·6 miles of chaining. The actual boundary relaid was 65·0 miles. The work was commenced on 15th December 1911 and completed on 31st May 1912.

Copies of tracings on scale 1″=1 mile and 1″=2 miles, showing the old Topographical boundary and the present demarcation, have been supplied to the Deputy Commissioners of Raipur and Sambalpur.

The cost has been met from deposits in the Treasury.

District Monghyr.

Jaffernagar-Zamindigri.

28. The demarcation of the Revenue Survey boundary of 1846, between Jaffernagar and Sikundarpur, Furidda Zamindigri was undertaken at the request of the Collector of Monghyr, *vide* his letter No. 1745R.-13, dated the 28th November 1911.

A comparative map, showing the different surveys, was prepared in the Bengal Drawing Office, and this was used as a guide for the preliminary traversing. The boundary was demarcated by the help of an accurate relative map prepared in the office of the Traverse Section, Bihar and Orissa Surveys.

The trijunction point of villages Malhopur, Maksudpur and Sabdalpur in the North (upland) as shown in the cadastral maps was found to be identical with the old Revenue Survey trijunction, and this was used as the starting point. The trijunction of Mouzas Singhia, Chaur Digar and Kanakol was used as a fitting point in the South.

On a subsequent requisition of the Collector, in his No. 279, dated the 4th May 1912, the western boundary of Jaffarnagar touching on villages Rasulpur, Sulemabad and Bazidpur Hurahi Az Rakbeh—was also demarcated.

The sites for 57 pillars were fixed and pointed out to the Khas Mahal Kanungo. The Collector has been requested to arrange for the building of permanent pillars. The sites of 23 pillars could not be permanently marked, as they fall in the bed of the Ganges river and it was found impossible to mark them with reference pillars. Connecting lines were run to fix the positions of three beacon rocks, Minapahar and Manpathal.

There were 58 traverse stations and 16·9 mile of chaining. The boundary relaid was 4.40 miles in length. The work was commenced on 13th March 1912 and completed on 28th May 1912.

Copies of traverse records and 4″ tracing have been sent to the Collector.

The cost was met from the Provincial Grant.

District Muzaffarpur.

Wahidpur, &c., Diara villages.

29. The demarcation according to the Cadastral Survey maps of 1892-93. of boundaries between Government Diara villages and private estates in Thana Hajipur, District Muzaffarpur, was done at the request of the Collector, *vide* his letter No. $\frac{R\ 391}{2}$, dated the 8th September 1911.

As the area is submerged for the greater part of the year, none of the old traverse stations were found and the traversing was started from the trijunction point of villages Mirzapur, Rampur Sham Chak and Rustampur in the upland, and closed on an old traverse station in village Raipur Basti in district Patna.

The sites for 62 permanent marks were fixed on 6·30 miles of boundary relaid, and pointed out to the Kanungo and parties concerned. Three other points were fixed, but they could not be permanently marked as they fall in the middle of the Ganges river.

The Collector has been requested to arrange for the building of pillars on the upland.

There were 52 traverse stations and 11·1 miles of chaining. The work commenced on 22nd January and was completed on 13th March.

Copies of traverse records and 16″ tracing have been sent to the Collector.

The cost was met from the Provincial Grant.

Nepal-Purnea Boundary.

30. The Collector of Purnea telegraphed (*vide* telegram dated the 17th November 1911) requesting that the extra pillar No. $\frac{81}{a}$ which was found to be inside the Nepal Territory be removed in the presence of the Subdivisional Officer, Araria, and the Nepal representative. The date fixed for the removal was the 27th November 1911, and the same traverser who restored the missing pillars last season was deputed for the work.

He met the British and Nepalese officers and removed the extra pillar in their presence and embedded it in its correct position, *viz.*, W. P. 81, in accordance with the old 4″ map of 1874-75.

The boundary between P.P. 77 and W.P. 81 was then relaid and marked by 4 wooden posts without numbers.

At the request of the Subdivisional Officer, Araria, the sites of W.P. 52, 57, 62, 64, 65, 66 and 83 were tested and new posts embedded in the presence of the Subdivisional Officer and the Nepalese Lieutenant at Rangeli. Broken portions of old posts were found underground, in every instance, except in that of W.P. 83, whose site was marked according to the old map.

There were 8 new traverse stations and 0·6 miles of chaining. The boundary relaid between W.P. 81 and P.P. 77 was 1·37 miles in length.

The surveyor left Hazaribagh on 22nd November 1911 and returned after completion of the work on 14th December 1911. The cost was met from the Provincial Grant.

Ganges Diara Special Demarcation Survey.

31. This special demarcation work, which is being undertaken with a view to providing maps which will show permanent marks and other prominent marks in Diara tracts, also the modern survey and Revenue and Diara Survey boundaries, was continued during the year under report.

32. The tract dealt with covers the Ganges Diara, from Fatwah in District Patna to a point opposite Mokameh Ghat in District Monghyr, and is about 56 miles in length, measured along the main channel of the river.

33. The field work covered 25 of the special Diara maps on the 4″ scale and represents an area of about 775 square miles.

34. The office work to date consists of the compilation of 67 of the special maps, of which 49 (24 in 1910-11 and 25 in 1911-12) have now been dealt with in the field and 18 are ready for the coming season's operations.

PART IV.—REPORT ON THE DRAWING OFFICE.

35. The detail figures of progress of the several sections of this office are given in Appendix III.

36. The constitution of the office remained the same as last year.

37. The Standard Mapping Section is really a part of the Survey of India under the general supervision of the officer in charge of the Provincial Drawing Office and under my control, but the outturn figures thereof are included in this report because the progress of Thana Mapping, etc., depends on the progress of the Standard Maps and it is convenient to have the figures of both sections together for purposes of comparison. The outturn of standard mapping is shortly as follows:—14 Standard Maps, covering an area of 3,478 square miles, have been submitted for publication, and 17, with an area of 3,253 square miles, have been submitted for supplementary survey. Four more Standard Maps are ready, except for incorporation of material of District Gaya, Hazaribagh and Jalpaiguri. Also 57 Standard Maps, with an area of 13,942 square miles, are in hand in different stages of completion. There are also 32 standards which had been drawn in pencil for Thana-mapping purposes, which are now being inked up gradually for publication.

38. In the Reproduction Section, the outturn of the year has been 409, 419 copies. For comparison with the figures of the foregoing year, it is necessary to include the work done for Bengal, which shows that altogether 415,867 copies were reproduced during the year under report as against 543,130 copies in 1910-11.

39. In the Map Record Section 7,308 original maps and records of Bihar and Orissa have been received during the year and stored, which brings the total to 184,565, but we are also storing 10,378 of Bengal, so the total of original maps, etc., in this office is 194,943.

CHAPTER III.

PART I.—TOUR OF THE DIRECTOR OF SURVEYS.

40. I have been in the field and on tour of inspection for 203 days during the year under report. I have frequently inspected all the sections of the Survey Department and a large percentage of the sheets and "partals" of the Bihar and Chota Nagpur Settlemeents. The drawing of the sheets is up to standard, and I satisfied myself that there was no falling-off in the degree of occuracy expected.

PART II.—SERVICES OF OFFICERS.

41. Messrs. A. W. Smart and L. F. Berkeley, in charge respectively, of the Traverse and Drawing Offices, have as usual devoted themselves to their work. I cannot speak too highly of their services.

42. Mr. Hardinge in charge of the Standard Mapping Section has done excellent work.

43. The following Assistants—Messrs. C. S. Kraal, L. B. Fitzgibbon F. E. R. Calvert, B. C. Gasper, A. E. LeFranc, A. W. Skempton, A. H. Bee and A. H. Kraal—are all favourably reported on as having worked hard and given every assistance to the officers in charge of their Sections. Mr. A. F. L Sharling, who joined early in the year, was of little use until the second half o the recess season, after which he advanced rapidly.

44. The relations between the Survey and Settlement Departments have been excellent. I have to thank Messrs. H. McPherson, I.C.S. and J. Reid, I.C.S., Directors of the Department of Land Records, for their ever ready co-operation in all matters in which the two Departments have to work together.

I have the honour to be,

SIR,

Your most obedient Servant,

R. T. CRICHTON, LT.-COL., I.A.,
Director of Surveys, Bihar and Orissa.

APPENDIX I.—PART A.

Summary of the outturn of work of the Survey parties in Bihar and Orissa for 1911-12.

District.	Traversing.				
	Number of villages.	Linear miles of chaining.	Number of stations at which theodolite was set up.	Number of azimuths.	Number of sub-traverses.
1	2	3	4	5	6
PRIVATE ESTATES.					
Hazaribagh	1,430	5,524	41,948	251	1,629
Shahabad Sone River Blocks	18 (Blocks)	264	861	5	30
Gaya	1,845	4,962	20,103	128	1,116
MISCELLANEOUS.					
Bhagalpur-Mohanpur-Shankerpur boundary dispute.	...	9·5	40	...	...
Bhagalpur-Mohanpur-Faridpur and Rattipur (Bairia) boundary dispute.	...	7·1	38	...	...
Bhagalpur-Bhawanipur-Jhalari boundary dispute	...	7·5	34	...	...
Sambalpur-Phuljhar-Borasambar and Cohen's boundary dispute.	...	73·5	591	...	...
Monghyr-Jaffarnagar-Zamindigri boundary dispute.	...	16·9	58	...	...
Muzffarpur-Wahidpur, etc., Diara villages survey.	...	11·1	52	...	...
Purnea-Nepal-Purnea boundary	...	0·6	8	...	...
Total ...	3,293	10,876·2	63,733	384	2,775

APPENDIX I.—PART B.

Statement of Outturn and Cost rates.

District and Estate.	Description of work.	Estimated area to be dealt with in square miles.	Year of inception of operation.	Area surveyed in square miles.		Cost rate per square mile.		Balance of area remaining to be surveyed.	Estimated cost of completing the area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous years.	During the year under report.	From beginning to the end of the year under report.			
1	2	3	4	5	6	7	8	9	10	11
PRIVATE ESTATES.										
Hazaribagh	Traverse	6,903	1,908	1,720	6,903	33·7	33·2	...	...	33·2
Shahabad (Sone River Blocks).	Ditto	4,502	1,907	162	4,502	11·6	34·8	...	...	34·8
Gaya	Ditto	3,850	1,911	1,080	1,080	33·1	33·1	2,770	94,000	33·7
Total ..	...	15,255	...	2,962	12,485	..	...	2,770	94,000	...

APPENDIX II.

BIHAR AND ORISSA.

Statement of sums expended for the year ending 30th September 1912.

District, etc.	Description of work.	Expenditure incurred during the year under report.			Total expenditure from inception to end of the year under report.		
		Actual cost.	Share of Director of Survey's pay and his office.	Total.	Actual cost.	Share of Director of Survey's pay and his office.	Total.
1	2	3	4	5	6	7	8
Shahabad	Travelling ...	1,631	258	1,889	1,34,098*	22,487	1,56,585
Hazaribagh	Ditto ...	50,025	7,936	57,961	1,95,438	33,675	2,29,113
Gaya	Ditto ...	30,909	4,903	35,812	30,909	4,903	35,812
MISCELLANEOUS.							
Ganges Diara—Special Survey...	Travelling and demarcation.	1,909	303	2,212	13,389	2,412	15,801
Muzaffarpur.—Boundary of Diara lands between Wahidpur and Saistapur.	Travelling ...	319	61	380	319	61	380
Purnea.—Boundary between pillars P.P. 77 and W.P. 81 in the Purnea-Nepal boundary.	Ditto ...	141	27	168	141	27	168
Monghyr.—Boundary between Jamindigri and Jaffarnagar.	Ditto ...	378	72	450	378	72	450
Raipur and Sambalpur.—Boundary between Phooljhar Estate of Raipur District and Borasambar and Ghens Estate of Sambalpur District.	Ditto ...	1,183	225	1,408	1,183	225	1,408
Bhagalpur.—Boundary between Shankarpur Private Estate and Mohanpur Government Estate.	Ditto ...	300	57	357	300	57	357
Bhagalpur.—Boundary of villages Bairia and Faridpur.	Ditto ...	111	21	132	111	21	132
Bhagalpur.—Boundary of villages Bhawanipur and Jhalasi.	Ditto ...	256	48	304	256	48	304
Total ...	Travelling and demarcation.	87,162	13,911	1,01,073	3,76,522	63,984	4,40,510
Bengal Drawing Office ...	Standard maps ...	32,721	5,191	37,912	(a) 2,55,476	31,187	2,86,663
	Badars ...	5,111	810	5,921	(b) 43,730	4,982	48,712
	Map records ...	5,415	859	6,274	(c) 40,131	4,649	44,780
	Thana maps ...	(d) 7,835	1,243	9,078	35,424	4,460	39,884
	Trijunction mark maps.	(e) 1,434	227	1,661	16,155	1,940	18,095
	District maps ...	1,076	171	1,247	6,773	852	7,625
	Ganges Diara maps	(f) 2,371	376	2,747	7,717	1,320	9,037
	Representation for attestation.	686	109	795	(g) 24,176	2,230	26,406
	Representation for distinction scale.	42,967	6,816	49,783	(h) 5,78,466	57,579	6,36,045
	Index maps for annual report.	95	15	110	894	155	1,049
	Excess Department work.	3,673	583	4,256	15,224	2,040	17,264
Grand Total ...		1,90,546	30,311	2,20,857	14,00,688	175,382	15,76,070

* Excludes Rs. 499 on account of 4 per cent. charges for instts. for 1907-1908.

(a) Includes Rs. 24,343, expenditure up to end of 30th September 1908, Eastern Bengal Report.
Ditto „ 4,133, ditto ditto 1909, ditto.
Ditto „ 1,94,279, ditto ditto 1911, Bengal Report.
Ditto „ 32,721, ditto ditto 1912.

(b) Excludes „ 3,262, included in Bengal Report for Survey year ending 30th September 1912.

(c) „ „ 610, ditto ditto ditto.

(d) Includes „ 1,763, cost of reproduction.

(e) „ „ 162, ditto.

(f) „ „ 4, ditto.

(g) Excludes „ 142, included in Bengal Report for Survey year ending 30th September 1912.

(h) „ „ 9,290, ditto ditto.
Includes „ 3,21,466, cost of reproduction from inception to end of 30th September 1907, not shown in the report for Survey year ending 30th September 1908.

APPENDIX III.

BIHAR AND

APPEN

OUTTURN OF BENGAL

Season

Standard Maps.									Traverse Charts.	
Sent for publication.	Complete, except final examination.	Complete for recent survey held up for future surveys.	In hand in various stages for publication.	In pencil with boundaries in blue for thana mapping purposes.		Published for revision survey.	Fiscal boundaries coloured.			
				Completed.	In hand.					
Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Published prints.	Unpublished prints.	Completed.	In hand.
1	2	3	4	5	6	7	8	9	10	11
72 K/3÷7 ... (old 175) in four sections.	.....	72 G/16 ...	63 O/14·15 ...	63 O/16 ...	.....	72 L/1·2·3·4·7·8 ...	26	20 and 10 were examined and corrected.	...	...
.....	.....	72 H/13 ...	64 K/12·16 ...	64 O/6·7·8 ...	.....	73 B/1·3·5·7·8·9 ...	.....	.....	...	...
.....	72 C/14 ...	78 B/6·8 ...	64 L/9·13 ...	64 O/10·11·12 ...	.....	73 B/10·11·13·14·15 ...	.....	.....	...	...
72 G/2·6 ...	.....	.....	64 O/4·9·13 ...	64 O/14·15·16 ...	.....	.....	.....	.....	...	...
72 K/4·8 ...	.....	.....	64 P/1·5 ...	72 O/12·16 ...	.....	.....	.....	.....	...	...
72 L/6·10 ...	72 L/11·12 ...	.....	72 C/2·3·4 ...	72 P/3·4·5 ...	.....	.....	.....	.....	...	...
72 L/13·14 ...	72 L/15 & 16 ...	.....	72 C/6·7·8·10 ...	72 P/6·7·8 ...	.....	.....	.....	.....	...	...
72 O/8 ...	.....	.....	72 O/11·12·15·16 ...	72 P/9·10·11 ...	.....	.....	.....	.....	...	...
72 P/1·2 ...	.....	.....	72 G/3·4·7·8·11·15 ...	72 P/12·13 ...	.....	.....	.....	.....	...	...
73 B/2·6 ...	.....	.....	73 E/1·2·3·4·5·6·7·8 ...	72 I/14·15 ...	.....	.....	.....	.....	...	...
.....	.....	.....	73 E/9·10·11·12·13·14 ...	73 I/1·2·3 ...	.....	.....	.....	.....	...	...
.....	.....	.....	73 E/15·16 ...	73 M/4·13 ...	.....	.....	.....	.....	...	...
.....	.....	.....	73 B/4 ...	73 M/1·5 ...	.....	.....	.....	.....	...	...
.....	.....	.....	73 C/1·2·3·4·5·6·7 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	..

ORISSA.

DIX III.

DRAWING OFFICE.

1911-12.

Ganges Diara Maps.				Thana, Trijunction Marks, and District Maps.											
Completed.					Thana Maps.						Trijunction Mark Maps.			District Maps.	
					Final.			Preliminary.							
During year.	Previously.	Total.	In hand.	District.	Thana.	Sheets.	Copies.	Thana.	Sheets.	Copies.	Thana.	Sheets.	Copies.	Completed.	In hand.
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
(c) 22	...	(c) 22	(c) 45	Darbhanga ...	Samastipur (a) ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Roshera (a) ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Benipatti ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Darbhanga ...	2	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Khajauli ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Madhubani ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Phulparas ...	2	140	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Bahera ...	1	70	.....	...	...	.....	...	...	...	...
...	...	...	...	Champaran ...	Bagaha (a) ...	3	210	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Shikarpur ...	2	140	.....	...	...	.....	...	...	...	...
...	...	...	...	North Monghyr ...	Tegra ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Gogri ...	2	140	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Begusarai ...	2	140	.....	...	...	.....	...	...	...	...
...	...	...	...	North Bhagalpur	Bihpur ...	1	70	.....	...	...	.....	...	...	...	1
...	...	...	...	.....	Madhipura ...	2	140	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Kishanganj ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Supaul ...	3	210	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Bangaon ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Partabganj ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	Purnea ...	Dhamdaha ...	2	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Raniganj ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Forbesganj ...	2	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Araria ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	.....	Kishanganj ...	1	...	.....	...	...	.....	...	...	...	...
...	...	...	...	Santal Parganas outside Damin,	Dumka (b) ...	6	...	.....	...	...	Pakaur ...	7	...	...	...
...	...	...	...	.....	Deoghur (b) ...	5	...	.....	...	...	Rajmahal ...	6	...	...	...
...	...	...	...	.....	Jamtara (b) ...	4	...	.....	...	...	Godda ...	9	...	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Dumka ...	17	...	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Deoghur ...	12	...	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Jamtara ...	10	...	...	...
...	...	...	...	Patna ...	.....	...	...	Dinapore ...	1	100	Dinapore ...	1	30	...	...
...	...	...	...	.....	.....	...	...	Patna City ...	1	109	Patna City ...	1	30	...	...
...	...	...	...	.....	.....	...	...	Phulwari ...	1	100	Phulwari ...	2	60	...	...
...	...	...	...	.....	.....	...	...	Maner ...	1	100	Maner ...	3	90	...	...
...	...	...	...	.....	.....	...	...	Bikram ...	2	200	Bikram ...	6	180	...	...
...	...	...	...	.....	.....	...	...	Fatuha ...	1	100	Fatuha ...	2	60	...	...
...	...	...	...	.....	.....	...	...	Masaurhi ...	1	100	Masaurhi ...	4	120	...	...
...	...	...	...	.....	.....	...	...	Hilsa ...	1	100	Hilsa ...	5	150	...	...
...	...	...	...	.....	.....	...	...	Islampur ...	1	100	Islampur ...	3	90	...	...
...	...	...	...	Shahabad ...	.....	...	...	Arrah ...	2	200	Arrah ...	6	192	...	...
...	...	...	...	.....	.....	...	...	Bikramganj ...	2	200	Bikramganj ...	2	64	...	...
...	...	...	...	.....	.....	...	...	Piro ...	2	200	Piro ...	2	64	...	...
...	...	...	...	.....	.....	...	...	Buxar ...	2	200	Buxar ...	2	64	...	...
...	...	...	...	.....	.....	...	...	Dumraon ...	2	200	Dumraon ...	2	64	...	...
...	...	...	...	.....	.....	...	...	Shahpur ...	1	100	Shahpur ...	1	32	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Dehri ...	4	100	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Sasaram ...	10	250	...	...
...	...	...	...	.....	.....	...	...	.....	...	...	Karghar ...	4	128	...	...
...	...	...	...	Sambalpur ...	.....	...	...	Rampella ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Bheran ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Barpali ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Attabira ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Bijepur ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Sohella ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Melchamunda ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Sambalpur ...	1	...	.....	...	...	...	...
...	...	...	...	.....	.....	...	...	Dhama ...	1	...	.....	...	...	...	...
22	...	22	45	.....	.....	51	1,610	.....	30	2,100	.....	121	1,768	...	1

year, but printed during the year.
details compiled by reduction from unpublished standards.
special reference pillars has been run in 49 of these 67 sheets.

APPENDIX

OUTTURN OF BENGAL

Season

District.	Reproduction of Village Maps Section.									Badar Section.						
	Class of Reproduction.	Season of survey, if any.	Previously supplied.		Supplied during the year.		Total to date.		Complete or incomplete.	Badars corrected in original maps.	Thana numbers entered and village names corrected in—		Headings and adjoining village names corrected in—		Skeleton traverse plots made for Settlement Officers and others.	Prints of Standard and district maps, etc., coloured for previous surveys and on other accounts.
			Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.		Villages.	Traverse volumes. Villages.	Field books. Villages.	Villages.	Sheets.		
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Gaya	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Patna	Final ...	1907-09	3,669	395,561	11	1,642 (e)	3,680	397,503	Complete	4	2,107 (d)	2,826	...	...	...	...
Shahabad ...	Final ...	1908-11	1,194	977,232	325	192,805 (e)	3,519	290,528 (g)	Incomplete.	207	...	...	...	...	...	...
	Attestation	1911-12	...	...	1,318	5,122	1,318	5,122	Ditto							
Champaran ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darbhanga ...	Unforeseen	...	...	...	418	4,180	418	4,180	Incomplete.	...	...	...	...	...	...	...
Muzaffarpur ...	Ditto.	...	...	...	6	6	6	6	Complete	...	...	...	...	...	...	...
Saran	Ditto.	...	...	...	221	2,210	221	2,210	Ditto	...	...	...	...	...	...	...
Bhagalpur ...	.....	...	...	...	...	...	...	...	...	14	...	...	...	...	...	...
Monghyr ...	.....	...	...	...	...	...	...	...	...	12	727	701	...	...	...	...
Purnea	Unforeseen	...	...	...	152	1,520	152	1,520	Complete	...	...	...	4	1	...	...
Santal Parganas ...	.....	...	...	...	...	...	...	...	...	101	...	...	2,305	2,548	...	...
Angul and Khondmals	.....	...	...	...	...	...	...	...	...	...	16	61	5	22	...	...
Balasore ...	Final ...	1907-11	4,012	179,797	365	11,373 (e)	4,377	191,170	Incomplete.	...	...	...	...	...	...	...
Cuttack	Final ...	...	1,908	97,608	5,176	155,191 (e) (f)	7,084	252,799	Ditto	...	...	...	...	...	...	...
Puri	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sambalpur ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hazaribagh ...	Final ...	1909-10	...	...	908	19,976 (e)	908	19,976	Complete	...	...	...	...	...	...	...
Manbhum ...	.....	...	...	...	...	...	...	...	...	...	...	...	..	..	...	...
Palamau ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ranchi	.....	...	...	...	...	...	...	...	...	...	15	41	...	...	...	...
Singhbhum ...	.....	...	...	...	...	...	...	...	...	...	225	...	...	...	...	...
Srinagar Banaili Raj	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Udaipur State ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Provinces ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diara Survey ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quasi official and Miscellaneous work.	.....	...	...	...	808	8,322	808	8,322	Complete	...	...	...	...	...	...	...
Province of Bihar and Orissa Index map.	.....	...	...	...	1	400	1	400	Complete	...	...	...	...	...	...	...
Two inches reductions, correction slips, etc.	.....	...	...	...	71	1,224	71	1,224	...	...	...	...	...	...	...	...
Total ...	.....	...	...	...	11,780	403,971	...	...	...	...	...	...	...	...	...	...

(d) One thousand two hundred and twenty-four villages have also been

(e) Includes

(f) Includes 5,194 copies of

(g) Includes copies supplied to

(h) Offsets have been

District,

Patna ... ...

Shahabad ... ...

Monghyr ... ...

III—*concluded*

DRAWING OFFICE.

1911-12.

Map Record Section.																						Extra departmental work.	
Original cadastral and topo. maps.			Revenue Diara and Miscellaneous Survey maps.			Traverse volumes of all kinds.			Field books of all kinds.			Calcutta Survey Fair Maps.			Thana, Trijunction, Index and other maps and traverse plots.			Tracos for reproduction.			Grand Total.	Copies supplied of revenue, diara and other survey maps.	Maps compiled for officials and others.
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.			
Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.			
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
3,395	...	3,395	53	...	53	24	...	24	45	...	45	...	...	...	47	...	47	281	3	284	3,848	...	...
5,723	14	5,737	18	...	18	36	...	36	67	...	67	...	...	...	123	143	266	15	10	25	6,149	...	...
6,463	3,432	9,895	41	...	41	15	21	36	113	2	115	...	...	...	87	4	91	...	...	...	10,178	...	...
5,805	...	5,805	...	...	...	25	...	25	52	...	52	...	...	...	24	7	31	5,428	...	5,428	11,341	...	...
9,082	...	9,082	45	...	45	35	1	36	71	...	71	...	...	...	283	10	293	7,558	...	7,558	17,085	...	...
6,358	...	6,358	...	...	...	25	...	25	54	...	54	...	...	...	35	...	35	6,250	...	6,250	12,722	...	...
7,270	...	7,270	36	...	36	30	...	30	87	...	87	...	...	...	27	...	27	6,541	...	6,541	13,991	...	...
5,919	...	5,919	58	...	58	31	...	31	62	...	62	...	...	...	340	9	349	2,335	...	2,335	8,754	...	...
7,951	...	7,951	31	...	31	43	1	44	93	...	93	...	...	...	427	55	482	3,467	1	3,468	12,069	...	...
8,187	...	8,187	47	...	47	41	1	42	81	...	81	...	...	...	443	3	446	2,121	...	2,121	10,924	...	...
11,958	...	11,958	...	...	...	64	1	65	130	...	130	...	...	...	421	112	533	11	...	11	12,697	...	...
975	...	975	...	...	...	...	...	...	...	...	...	...	...	...	7	...	7	2,022	...	2,022	3,004	...	...
4,257	...	4,257	20	..	20	29	...	29	60	...	60	...	...	...	12	1	13	7,994	125	8,119	12,498	...	...
8,049	292	8,341	43	...	43	61	2	63	123	...	123	...	...	...	33	20	53	7,102	312	7,414	16,037	...	...
7,626	...	7,626	17	...	17	36	...	36	73	...	73	...	...	...	34	1	35	7,490	...	7,490	15,277	...	...
...	...	...	...	...	...	32	...	32	...	...	...	...	...	...	290	2	292	...	...	...	324	...	...
555	...	555	9	...	9	14	25	39	73	9	82	...	...	...	76	6	82	134	...	134	901	...	...
...	863	863	10	...	10	26	4	30	24	1	25	...	...	...	9	1	10	...	...	...	938	...	...
714	...	714	...	...	...	4	...	4	14	...	14	...	...	...	...	...	...	...	...	...	732	...	...
8,056	1,772	9,828	13	...	13	63	1	64	131	...	131	...	...	...	221	20	241	884	...	884	11,161	...	...
3,462	19	3,481	...	...	...	42	...	42	91	...	91	...	...	...	65	1	66	...	...	...	3,680	...	...
...	...	...	...	...	...	9	...	9	16	...	16	...	...	...	..	...	...	...	...	...	25	...	...
...	...	...	...	...	...	1	...	1	3	...	3	...	...	...	44	...	44	...	...	...	48	...	...
17	...	11	3	...	3	22	...	22	...	...	...	...	...	...	...	...	...	...	...	...	36	...	...
...	...	...	19	...	19	52	1	53	74	...	74	...	...	...	...	...	...	...	...	...	146	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	468	99
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
111,816	6,392	118,208	463	...	463	760	58	818	1,537	12	1,549	...	...	...	3,048	395	3,443	59,633	451	60,084	184,565	468	99

corrected in duplicate copies of traverse tables for district officers.

blue prints.

54 sheets of Killa Bishunpur.

Standard Mapping Section.

entered in traverse volumes as follows:—

Original volumes No. of villages.	Copies of volumes. No. of villages.
2,291	2,045
442	816
46	...

R. T. CRICHTON, LIEUT.-COL., I.A.,

Director of Surveys, Bihar and Orissa.

PATNA; Printed and published by E. HILL, Superintendent, Bihar and Orissa Government Press,
(D. L. R.) No. 4—450—1-2-1913.

BOARD OF REVENUE, BIHAR AND ORISSA.

No. 17—160-7.

FROM

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,

To

THE SECRETARY TO THE GOVERNMENT OF
BIHAR AND ORISSA, REVENUE DEPARTMENT.

Dated Bankipore, the 11th February 1913.

Member in charge:
The Hon'ble Mr. W. MAUDE, I.C.S.

SIR,

I AM directed to submit the Survey and Settlement Reports for the year ending the 30th September 1912. The submission of the reports has been delayed owing to the late receipt of the Survey report, which was, for some reason unknown to the Board, greatly delayed in the Press.

2. The area of the province as now constituted is 83,592 square miles. Including the area of 3,064 square miles of original work completed in the year under report the total area for which a Cadastral Survey has been carried out and a record-of-rights prepared is 57,875 square miles. Of this, 57,447 square miles has been completed under the control of the Director of the Land Records, the balance having been surveyed and settled under the officers not working under the control of the Director. Another 5,010 square miles are covered by topographical or forest survey, for which no record-of-rights has yet been prepared. Twenty thousand seven hundred and seven square miles still remain for completion. This includes portions of Shahabad and Gaya districts in the Patna Division, a small portion of the Sonthal Parganas in the Bhagalpur Division, small portions of Cuttack, Puri and Sambalpur and the jungle tracts of Angul in the Orissa Division and the bulk of Hazaribagh, Palamau and Manbhum districts in the Chota Nagpur Division.

3. During the year under report, the programme of the Survey Department was practically carried out in full. The programme of the Settlement Department was also carried out in full, with the exception of the settlement of fair rents in North Shahabad both in Government and temporarily-settled estates under section 104 and in permanently-settled estates under section 105. In the former the large number of petty estates involved a great deal of labour while the number of applications filed for settlement of fair rents under section 105 made it impossible to carry through the work with the available staff.

4. The outturn (2,962 square miles) of traverse survey, which was carried on in the districts of Hazaribagh and Gaya was less than that of the previous year (3,618 square miles). The principal reason for the decrease is that the Survey in Gaya embraced 390 square miles of previously surveyed area, which had to be undertaken in revision by the Settlement Department in the current year in addition to the new work in the area traversed. The cost rate per square mile in Hazaribagh rose from Rs. 30·5 to Rs. 33·7 which is explained by greater intricacy of work and bad health among the staff. The cost rate in Gaya, Rs. 33·1, is satisfactory in view of the fact that connections with old stations had to be made, and the values of the old stations converted to values of the present survey.

5. Various demarcations were undertaken at the instance of Collectors in several districts, and boundary marks erected. Good progress was again made in the Ganges *diara* special demarcation survey, where 56 linear miles measured along the main channel of the river were completed, maps showing permanent marks in the *diara* tract being prepared. In the Bengal Drawing Office good progress was made in Standard and Thana Mapping.

6. The work of the Settlement Department lay in 10 districts and consisted of cadastral survey and preparation of the record-of-rights, the settlement of fair rents and of land revenue in Government and temporarily-settled estates, the settlement of fair rents and commutation of produce rents on application in permanently-settled tracts, the completion of revision operations in Orissa and the experimental maintenance of the record in Balasore.

7. The total area cadastrally surveyed was 2,662 square miles as against 3,378 square miles dealt with in the previous year. The reason for the decrease was the short programme sanctioned for Shahabad in view of the commencement of operations in Midnapur. Now that the operations in Midnapur no longer concern this Government the programme in Gaya district has been accelerated so that the area taken up in original work and revision again approximates to the old standard of 1,600 square miles per annum. The work was inspected by the Director of Surveys and is again reported to be well up to standard both in drawing and accuracy.

8. Practically all the work pending from last year in South Monghyr and in Patna has been completed, with the exception of the submission to the Government of India of the rent-rolls and report of the proceedings under section 112 in the estates of Babu Sukan Singh in South Monghyr. The case is now before the Board of Revenue on an appeal under rule 76, Chapter VI of the Rules under the Bengal Tenancy Act, concerning the Settlement Rent-Roll, and the report should be sent up as soon as the Board of Revenue has passed orders. The Board refrains from any comment on the case at this stage of the proceedings.

9. The chief item of interest in connection with the work in Patna is the decision of the Special Judge in respect of the Settlement Officer's orders, deciding *dahiak* to be an illegal *abwab*. The Board agrees with the view of the Director of Land Records that it is undoubtedly the business of Settlement Officers to decide the question of the legality of actual realisations, and that, apart from the extreme dubiousness from a legal point of view of the learned Judge's decision, to limit the duty of Settlement Officers to recording existing conditions would detract enormously from the utility of Settlement operations. As rent is defined in section 3 (5) of the Bengal Tenancy Act as "whatever is *lawfully* payable or deliverable in money or kind," there appears to be no question but that Settlement Officers are bound to scrutinise the legality of demands when recording rents in the course of preparing a record-of-rights. If it is found that the Civil Courts generally take other views, the question should be freed from any shadow of doubt at the next revision of the Tenancy Act.

10. In Shahabad district it is reported that disputes are still found to be fostered by the failure of landlords to give proper rent receipts. The attention of the local officers was called to this matter in last year's report, and it is understood that more adequate penalties have been imposed in the cases reported by the Settlement Officer. It will, however, have to be kept in mind that after the Settlement staff have left the district, the duty of watching this fruitful source of agrarian unrest will devolve on the district staff.

11. The Director of Land Records also draws attention to the use made of the Criminal Courts to set aside the decisions of the Settlement Courts in the course of framing the record-of-rights. The Board agrees that in ordinary cases the object of section 145 proceedings, which is to prevent breaches of the peace, can be fully secured by upholding the decision of the Settlement Courts, and that if such decision is to be closely followed by a revisionary magisterial enquiry the work done by the Settlement Department becomes worse than futile.

12. The number of tenancies (2,064) in Shahabad in which rents were settled during the framing of the record-of-rights by agreement under section 109 C, though less than in some previous years, is satisfactory in showing that the provisions of this section are still useful.

13. In Chota Nagpur the work of the Ranchi district was brought to a successful conclusion except for a few minor details and the final report was published. In Hazaribagh good progress has been made. The agrarian conditions of that district approach to those of the adjoining districts of

Bihar. The replacement of the village headman system by the *thikadari* system, already met with in South Monghyr, has made some progress, but it appears that the Settlement operations have been undertaken in time to prevent the ousting of the old village headmen from the position which they have earned by their enterprise in opening out the land, in favour of creatures of the landlord who have no connections either in blood or interest with the actual cultivators.

14. The revision operations in Orissa have now been practically completed at a cost of a little over Rs. 212 per square mile. The most interesting feature of the work in the year under report is perhaps the fact that applications for settlement of fair rents were nearly all filed by the tenants themselves. It is explained that the landlords are on the whole unwilling to incur the costs of filing such applications, both because the holdings are so small that the probable enhancement will hardly cover the Court-fees, and because they know that Government will settle fair rents at its own cost at the expiry of the revenue settlement 15 years hence. It is, however, remarkable that the tenants should themselves come forward now to have their waste lands settled, and it may perhaps be presumed that they realise the advantages of having the lands formally recognised as part of their holdings even at the cost of having a rent assessed on them.

15. The Director of Land Records quotes the Settlement Officer on the success of the experimental maintenance of land records in Balasore and Cuttack. The latter is of opinion that it is on the whole popular with raiyats and small landlords, but that otherwise the landlords as a class dislike it. The existing scheme of triennial maintenance is practicable but exceedingly costly. The Settlement Officer recommends the alternative of revision every 10 or 15 years with a small permanent staff of experts, the area to be covered being divided into a number of tahsils or circles corresponding to the number of years after which revision in each circle will be made, and the term of settlement being adjusted for each circle so as to expire at intervals of one year in succession. The whole area would thus be covered by a trained but inexpensive permanent staff at sufficient leisure to permit of the work being done accurately and effectively. The suggested solution appears to be a sound one, but the question is still under consideration of the Government of India.

16. The work of the Land Records staff employed in maintenance of the records in Sambalpur was satisfactory. The North Bihar Mutation offices again proved a failure, and the Board agrees that they should be closed as soon as the revision of the surveys and record-of-rights in North Bihar is started. The recording of mutations in Government and Wards' Estates shows some improvement in the former and considerable improvement in the latter. The increase of interest taken by the District Officers in maintenance of boundary marks, on which the Government commented with satisfaction in last year's resolution, has been well maintained.

17. The work of the Survey Department, which was in charge of Colonel Crichton, C.I.E., for the whole year, except for a period of 17 days when Mr. A. W. Smart officiated, was carried on with its usual high standard of efficiency. The Board regrets to learn that the latter officer, who has for many years done invaluable work in the Survey Department, is so seriously indisposed that there is some doubt as to whether he will be able to resume work.

18. The Hon'ble Mr. H. McPherson, I.C.S., was in charge of the Settlement Department up to the forenoon of the 15th April 1912 and Mr. J. Reid, I.C.S., was in charge for the remainder of the year. The relations between the two Departments continued to be as thoroughly satisfactory as in previous years.

I have the honour to be,

SIR,

Your most obedient Servant,

J. A. HUBBACK,

for *Secretary*.

B. & O. G. P.(Rev.) No. 29—450—25-3-1913—H. P. G.

REVENUE DEPARTMENT.

LAND REVENUE BRANCH.

RESOLUTION.—No. 2437R.

Dated Ranchi, the 17th March 1913.

READ—

The Survey and Settlement Reports for the year ending the 30th September 1912, and the remarks recorded thereon by the Board of Revenue.

The Reports with the Board's remarks were due to Government on the 15th of January but were delayed in the Press and were not received until the 13th of February, two days before they were due to the Government of India. The Lieutenant-Governor in Council hopes that arrangements will be made for the more punctual submission of the Reports in future.

2. As the survey-settlement year runs from the 1st of October, the work of the two Departments during the first half of the year included areas which lie beyond the limits of Bihar and Orissa and in accordance with a temporary arrangement, which is still in force, the Director of Surveys continued throughout the year to control traverse survey operations in the Midnapur district of Bengal. The present reports, however, are concerned exclusively with this province in which the major portion of the work of both Departments has always fallen. As these are the first Annual Reports for Bihar and Orissa it is interesting to take stock of the general progress which has been made up to date by survey-settlement work in the several divisions of the province. Excluding the Tributary States, the area of the province is approximately 84,000 square miles, of which roughly 6,000 square miles consist of hills, forests, and river *diara* not liable to detailed survey and settlement. Of the remaining 78,000 square miles, up to the 30th September 1912 a record-of-rights has been prepared for approximately 58,000 square miles, leaving a balance of 20,000 square miles; throughout more than one-half of this latter area operations are now in progress and have reached various stages of advance. The Tirhut Division has been wholly surveyed and settled. In the Bhagalpur Division, there remains only the Sauria-Paharia tract of Rajmahal which was excepted from the late operations in the Sonthal Parganas but has come under survey in the present field season. In the Orissa Division the only considerable areas that have not been surveyed and settled are the Khondmals subdivision of Angul and some zamindari forests of Sambalpur. In the Patna Division, the Patna district has been completed and Shahabad is practically finished, while in Gaya the operations are now in progress and will be completed in three or four years' time. In the Chota Nagpur Division, Ranchi and Singhbhum have been completed, the operations in Hazaribagh have made good progress, Palamau has just been taken up, and Manbhum alone remains outside the sanctioned programme. It will thus be seen that the time is fast approaching when the whole province will have the benefit of a detailed field survey and a complete record of agrarian rights.

3. The main work of the Survey Department consisted of traverse survey which covered an area of 2,962 square miles in the districts of Gaya and Hazaribagh. The cost rate in Hazaribagh was Rs. 33·7 against Rs. 30·5 in the previous year, the slight increase being due to the more intricate nature of the work and to the ill-health of the field staff at the beginning of the season. The cost rate of Rs. 33·1 in Gaya was extremely moderate, for the work covered an area of 400 square miles lying outside the programme, in which connections had to be established with previous surveys. The Lieutenant-Governor in Council is satisfied that the work in both districts was carried out with due regard to economy.

4. A large amount of miscellaneous work connected with boundary demarcation and *diara* surveys was carried out by the Department during the

year. The most important items were the demarcation of 65 miles of the Sambalpur district boundary and the preparation of special maps for an area of 775 square miles in the Ganges *diara*. A full programme of work was also accomplished by the Bengal Drawing Office which has till now been dealing with the map work of the Midnapur Settlement in addition to the work of this province.

5. The work of the Settlement Department lay in ten districts and consisted of the cadastral survey and preparation of the record-of-rights, the settlement of fair rents and of land revenue in Government and temporarily-settled estates, the settlement of fair rents and commutation of produce rents in permanently-settled estates, the completion of the revision operations in the Orissa Division, and the experimental maintenance of land records in the districts of Balasore and Cuttack.

6. The total area cadastrally surveyed during the year was 2,662 square miles, while records were finally published for 4,907 square miles, including 1,843 square miles of the Orissa Revision area. In the Patna Division, the work pending from last year in South Monghyr and the Patna district was completed. In South Monghyr the most important matter was the completion of the proceedings under section 112 of the Bengal Tenancy Act in the estates of Babu Sukan Singh. Government now await a report showing the results of the proceedings which will require the final confirmation of the Governor-General in Council. In Patna, the chief point of interest was the decision of the Special Judge in an appeal against the finding of the Settlement Officer that the addition to produce rents called "*dahiak*" was an *abwab*. The Special Judge held that it was not the business of Settlement Officers to consider the legality of any particular realisation and that their sole duty was to record existing facts. The Lieutenant-Governor in Council concurs in the view of the Board that the decision of the Special Judge, if generally followed, would detract enormously from the utility of settlement operations. Since settlement operations were initiated in the province it has been one of the most important functions of the Settlement Department to examine the actual payments made by raiyats to their landlords, to decide what is truly "rent," as defined in section 3 of the Bengal Tenancy Act, and to separate from the rent illegal enhancements and *abwabs* which are not legally payable. The "*dahiak*" case was not carried by the respondent raiyats on second appeal to the High Court, and until an authoritative ruling has been obtained, His Honour in Council does not consider it necessary to adopt the remedy of further legislation on the subject.

7. In Shahabad, the programme was completed with the exception of some rent settlement work in Government and temporarily-settled estates and a considerable balance of case work. The failure of landlords to give proper rent receipts to their raiyats continued to be a fruitful source of dispute in this district, and the Lieutenant-Governor in Council hopes that the more adequate penalties imposed during the year in the cases reported by the Settlement Department will have the desired effect of impressing upon landlords the necessity for observing the provisions of the law in this matter.

8. The Director of Land Records has drawn attention to the use which parties sometimes make of the Magisterial Courts, during the pendency of settlement proceedings, to secure the reversal of adverse decisions in the Settlement Courts. The Lieutenant-Governor in Council agrees with the Board that as the object of section 145 of the Criminal Procedure Code is to prevent breaches of the peace this object can best be secured by accepting the decisions of the Settlement Court on the subject of possession and leaving the parties who are aggrieved by such decisions to find their remedy in the Civil Court. Part V, Chapter II of the Bengal Settlement Manual contains some useful suggestions regarding the utilisation of settlement records in the trial of criminal cases arising out of land disputes. The attention of subordinate Courts might profitably be drawn by District Officers to this chapter, and in particular to rule 867, of the Manual.

9. In Chota Nagpur, settlement work was in progress in the Hazaribagh, Ranchi, Manbhum, and Singhbhum districts. The work of the Ranchi district was brought to a successful close and the final report was published during the year. The Lieutenant-Governor in Council has read with inter-

est the account which the Director of Land Records has given of the rights of Sonthal headmen and permanent *thikadars* in Hazaribagh and approves of the action which has been taken by the Settlement Department to place these tenures on a more stable footing. In Manbhum, the programme which covered about one-fourth of the district was practically completed. By the Divisional Commissioner's decision on an appeal under section 130 of the Chota Nagpur Tenancy Act the *tabedar* ghatwals of *khuntkatti* origin in pargana Barahbhum have been confirmed in the possession of their recorded *khuntkatti* rights. Their tenancies can no longer be treated as service holdings and they are not now liable to ejectment. In Singhbhum, the operations in the Dhalbhum estate were completed and the final report was submitted to the Government of India during the year. Before the close of the year sanction was obtained to the inception of survey and settlement operations in the district of Palamau.

10. The revision operations in Orissa have been practically completed at an average cost of Rs. 212 to the square mile. It is noticeable that nearly all the applications for the settlement of fair rents under section 105 of the Bengal Tenancy Act were filed by the tenants and not by the landlords. The object of the former was to secure themselves in the lands which they had reclaimed since the last revenue settlement. The landlords as a whole refrained from applying for enhancement on the ground of the rise in prices that has taken place. They are content to wait till the expiry of the revenue settlement when the work of rent settlement will be done at the cost of the State.

11. The experiment of triennial maintenance of records was continued in Balasore and Cuttack. It is reported by the Settlement Officer to be on the whole popular with the raiyats and small landlords, while zamindars as a class dislike it. Even triennial maintenance has proved to be exceedingly costly and it has been found difficult to provide that amount of supervision which is essential if the work is to have beneficial results. The whole question of maintenance is still under the consideration of Government and pending its final decision the Government of India have consented to the omission of the Land Records Chapter from the Orissa Tenancy Bill which is now before the Provincial Legislative Council.

12. The work of the Land Records establishment in Sambalpur continued satisfactory. Proposals for improving the pay and prospects of the staff were sanctioned during the year. The mutation offices of North Bihar again proved a failure but the question of their abolition will stand over until orders have been received regarding the North Bihar Revision Settlement. Some improvement has taken place during the year in the work of recording mutations in Government and Wards' Estates.

13. The Survey Department was throughout the year in charge of Colonel Crichton, C.I.E., the termination, owing to ill health, of whose long connection with the surveys of Bengal, Bihar and Orissa is a matter for deep regret and a serious loss to the administration. The Lieutenant-Governor in Council desires to take this opportunity of placing on record the very high estimation with which the services of Colonel Crichton in the Survey Department, extending over a period of more than 20 years, have consistently been regarded by Government. The Settlement Department was in charge of Mr. H. McPherson, I.C.S., for the first half of the year and of Mr. J. Reid, I.C.S., for the remaining pe iod. The thanks of Government are due to both for their efficient administration of the Department during the year. Messrs. J. D. Sifton, J. A. Hubback, and J. F. W. James, who were in charge of the major settlements, administered their charges to the complete satisfaction of the Lieutenant-Governor in Council. His Honour in Council has also read with pleasure the names of the other officers who have been mentioned with commendation in the concluding chapters of the two Reports.

ORDER—Ordered that this Resolution be published in the *Bihar and Orissa Gazette* and that a copy of it with copies of the Reports and of the Board's remarks thereon be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

J. C. B. DRAKE,

Under Secretary to the Government of Bihar and Orissa.

ANNUAL REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

UNDER THE CONTROL OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA,

FOR THE

YEAR ENDING 30TH SEPTEMBER, 1913.

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REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

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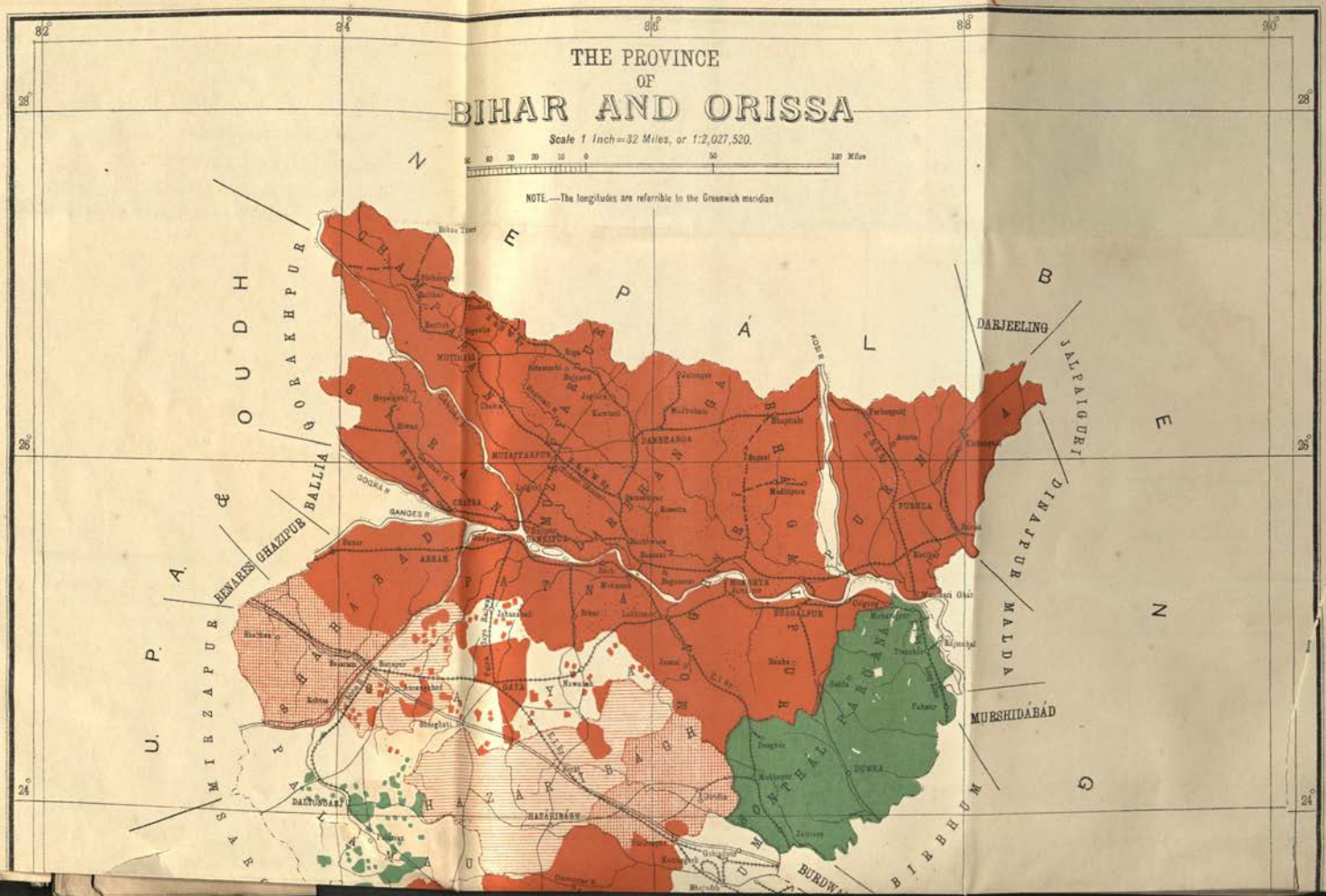
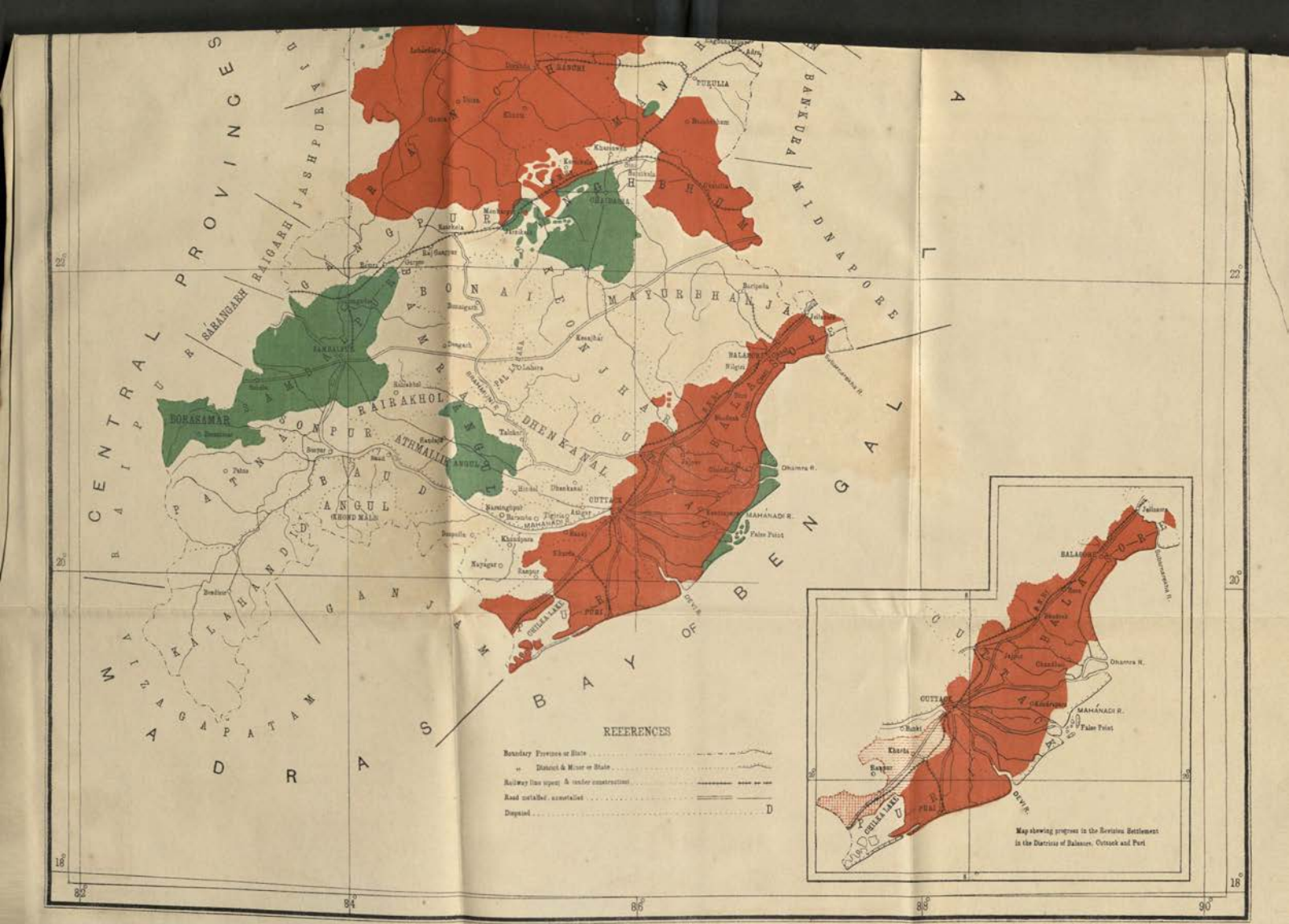
„ „ „ Survey Work, Traverse and Cadastral.

SETTLEMENT MAP





Area the records of which were finally published under the Bengal and Chota Nagpur Tenancy Acts prior to the year ending 30th September, 1913

Area the records of which have been finally published or completed under the Bengal and Chota Nagpur Tenancy Acts during the year ending 30th September, 1913

Area in which the preparation of settlement records under the Bengal and Chota Nagpur Tenancy Acts was in progress, but not completed during the year ending 30th September, 1913

Area the records of which were finally published under other laws prior to the year ending 30th September, 1913

DEPARTMENT OF LAND RECORDS AND SURVEYS,
BIHAR AND ORISSA.

No. 6429.

FROM

J. REID, ESQ., I.C.S.,
DIRECTOR OF THE DEPARTMENT OF LAND RECORDS
AND SURVEYS, BIHAR AND ORISSA,

To

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,
LAND REVENUE DEPARTMENT.

Dated Ranchi, the 15th December, 1913.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted under the supervision of this Department during the year ending the 30th September 1913 :—

PART I.—CADASTRAL SURVEYS AND SETTLEMENTS.

CHAPTER I.

GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operations.

2. Survey and settlement operations were in progress during the year in 10 districts of the Province. The area cadastrally surveyed during the year was 3,118 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 4,053 square miles, attested in 4,507 square miles, and finally published in 4,259 square miles. The rents of 262,031 tenants were settled. The expenditure of the year amounted to Rs. 8,73,073.

Total area settled in the Province up to 30th September 1913.

3. The total area for which a record-of-rights has now been completed under the control of the Department is 61,706 square miles. Of this 4,259 square miles were completed during the year under report. Progress during the last twenty-seven years has averaged 2,286 square miles a year.

4. *Future programme.*—The scheme for the revision of the record-of-rights of the North Bihar districts was sanctioned in the Government of India's order

No. 638-215-7, dated the 29th April, 1913, and the revision operations commenced in thanas Bettiah, Bagaha and Shikarpur in the district of Champaran, towards the close of the year. An approximate programme of the Survey and Settlement operations to be undertaken in the Province during the 20 years commencing from 1st April 1914, was framed and submitted to the Board of Revenue during the year.

Settlement Staff.

5. The largest number of Settlement Officers employed during the field season was 4 against the same number in the preceding year. Of these 3 were Civilian Officers employed in the major settlements in South Bihar, Orissa and Chota Nagpur, and the fourth was a Deputy Collector employed in the Khurda Government Estate. The largest number of Assistant Settlement Officers employed during the year was 77 against 95 for the previous year. The 77 officers consisted of 4 Civilians, 18 Deputy Collectors, 44 Sub-Deputy Collectors, 7 Munsifs, 2 Professional Advisers and 2 non-gazetted officers; 40, or more than half the number of Assistant Settlement Officers were employed in Chota Nagpur, 27 in South Bihar, 6 in Orissa and 3 in Khurda; one was employed as a Superintendent of Land Records in the district of Sambalpur.

The orders of the Government of India sanctioning the increase in the cadre of seven Deputy Collectors and thirteen Sub-Deputy Collectors for employment in Survey and Settlement operations throughout the Province, were partly given effect to by the appointment of two additional Deputy Collectors and eleven Sub-Deputy Collectors.

Final reports.

6. The final reports of the operations in South Monghyr, Bishunpur Estate in Cuttack, the Monoharpur tenure in Singhbhum district, and of the Revision Settlement in Orissa were written during the year and are now passing through the Press.

Maintenance of Jurisdiction lists and maps.

7. During the year 11 proposals for alterations in the jurisdiction of thanas and police-stations were received for examination. The jurisdiction notifications issued numbered 9 only.

Training of Junior Civilians.

8. Six officers were deputed to undergo Survey and Settlement training under the Settlement Officers of South Bihar and Chota Nagpur. Messrs. Cousins, Ansorge, and Merriman were trained in Bihar, while Messrs. Madan, Johnston, and Horsfield received instructions in Chota Nagpur. All the officers appear to have derived benefit from the course of training, though it was too short to be effective. Proposals to depute the Junior Civilians for a period of $5\frac{1}{2}$ months, in order that they may undergo a more complete course of training have been accepted by Government since the close of the year.

Training of Munsifs.

9. Having completed the term of 18 months' deputation to Survey and Settlement work, the four Munsifs deputed in 1911 reverted to the Judicial branch of the service in April 1913. In October 1912, the services of only three Munsifs were placed at the disposal of the Department. Two of these officers were, however, found unsuitable for the work of Settlement and reverted to the Judicial service after undergoing a few months' training.

Training of District Kanungos.

10. Three District Kanungos from the three Divisions of Patna, Bhagalpur, and Orissa received training in Survey and Settlement work. The two Kanungos from the Bihar division were trained in Gaya and Shahabad, while the one from Orissa was deputed to the Chota Nagpur Settlement.

Departmental rules.

11. No Departmental rules of any importance were issued during the year.

Cess Revaluation.

12. As in the previous year, a Cess Revaluation Roll was prepared in Hazaribagh district under Chapter IIA of the Bengal Cess Act simultaneously with the attestation of the settlement records, for an area of 1,881 square miles.

In paragraph 12 of last year's report it was stated that the procedure followed under Chapter IIA involved a great deal of duplication of work and that the whole system appeared to be cumbrous and expensive. This view has since been confirmed by the detailed investigations made during the year. The first objection to the procedure is its excessive cost. The expenditure is, however, unavoidable and is, indeed, a necessary consequence of the cumbrous procedure followed. Under the law, the Revaluation rolls must be prepared and corrected *pari passu* with the progress of attestation. The result is that they have to be corrected, modified, or altogether rewritten several times before they are finally published. Experience has shown that it is necessary to re-prepare at headquarters nearly 50 per cent. of the village rolls on account of the changes necessitated by modification in rent-rates. Any modification in the village rates, for instance, necessitates the preparation of a new Revaluation roll in respect of all rent-free lands, and the same kind of duplication of work goes on in respect of almost all items to a greater or less extent from the attestation stage to final publication. This process of correcting and recopying the records is, of course, an essential part of Settlement procedure, whereas, for purposes of Cess Revaluation, it is unnecessary, as the finally corrected records could be utilized for the purpose equally well, and the intermediate processes, including draft publication with its concomitant corrections, eliminated.

Nor are the rolls prepared by the Settlement Department by any means complete. After they have been made over to the District Officer, the latter will still have to prepare the tenurewar statements and the rolls prescribed in the Cess Manual; this additional expenditure will not be insignificant, while the chances of serious mistakes will be increased owing to the transfer of the final stages of the work to a new establishment, who may not understand how to utilize the records prepared by the Settlement Department to the best advantage.

Apart from the obvious disadvantages and heavy expense of the present procedure, the system of preparing Cess Revaluation rolls on the basis of an incomplete and incorrect record, and then draft publishing them with the record-of-rights does not ordinarily appear to fulfil any useful purpose. Under the provisions of section 37C of the Cess Act, the entry made in the record-of-rights of the amount of money rent payable for land is declared to be final for the purposes of the Cess Act. In a district such as Hazaribagh, these entries comprise at least 80 per cent. of the total assessable values of estates and tenures. As far, therefore, as lands held on money rents are concerned, the cumbrous procedure of draft publishing is a mere waste of time. It serves no useful purpose, because, if a tenure-holder is aggrieved by an entry regarding the amount of rent payable, he files an objection against the entry in the Settlement record, knowing that the valuation records must be corrected in accordance with the decision, and that, unless the Settlement record is altered, no change can be made in the Cess Revaluation roll. It is for this reason that although the Cess Revaluation rolls of over 5,000 square miles in Hazaribagh district have been prepared, no tenure-holder has hitherto filed an objection against any entry. This statement is, I believe, true not only of the entries regarding cash rents but also of all the miscellaneous entries regarding the other items to be included in the annual value of an estate or tenure.

A scheme of Cess Revaluation which would obviate the patent objections to the present procedure and, at the same time, permit full use to be made of the record-of-rights and the Settlement staff has been recently submitted by me for the Board's consideration. I propose that the valuation rolls should be prepared as soon as the Settlement records are ready for final publication, that is to say, when the *terij* (or abstract of tenancies) is complete. The *terij*, for Cess Revaluation purposes, is the equivalent of the finally-published record, but in a handy form from which the cess rolls for each tenure can be prepared with great facility and correctness. The tenurewar rolls so prepared could be published at the same time as the record-of-rights, and each tenure-holder will thus be able to see at a glance what his cess demand is, which he cannot do under the present system, as the rolls are prepared by villages, unless he takes the trouble of bringing together and collating the statements for each village. The preparation of tenure-rolls based on statistics derived from the *terij* would also advance the process of cess revaluation a further stage, and would enable the District Officer to assess cess at once, in many cases. If the cess revaluation

were carried out in the way proposed,—and full details have been submitted to the Board—it is estimated that the cost in an average district ought not to greatly exceed Re. 1 per square mile ; the cost rate in Hazaribagh so far amounts to about Rs. 4-12 per square mile.

To give effect to my proposals it will be necessary to amend Chapter IIA of the Cess Act.

Orissa Tenancy Act.

13. The Orissa Tenancy Bill was passed as Bihar and Orissa Act II of 1913, and came into force on the 12th September, 1913. Draft rules under sections 191 and 245 of the Act have been published.

Important rulings of the High Court.

14. Among the more important rulings of the High Court connected with the working of the Bengal Tenancy Act, the following may be noted :—

(*a*) Where an application to the Local Government for an issue of an order under section 101 (2) (*a*) of the Act was made by a number of landlords having a large interest in an estate, and an order was accordingly issued, it was held that the order was not *ultra vires*, and that it rested with the Local Government to determine whether the application was in due form, and that after the Local Government had decided this point and had issued the notification, the jurisdiction of the Civil Court to interfere with the order was barred by clause 3 of the same section.

(*b*) Where after the final publication of the record-of-rights, a fair and equitable rent was settled by the Settlement Officer in a proceeding under section 105 of the Act and an appeal by the tenants against this order was dismissed by the Special Judge, the substantial matter in controversy before the Special Judge being whether the rate of rent settled was or was not equitable, no question being raised as to the area, and subsequently it was discovered that the area had been erroneously stated and the Settlement Officer amended the record so as to alter the entry about area and the rent payable—it was held that, although the amendment of the record was not made under section 108A of the Act, it was not without jurisdiction and that the Settlement Officer acted in the exercise of a power inherent in every Court to correct obvious errors or incidental slips in its own records. It was also held that section 108A has a much wider scope than the correction of obvious errors and incidental slips in a record-of-rights : It entitles the Settlement Officer to correct the record when there has been a *bona fide* mistake made either by the Settlement Officer or one of the parties concerned ; the section in substance authorizes the Settlement Officer to reconsider the matter on its merits.

Utilization of Land Records.

15. Extracts from the annual reports received from the District officers indicate that the subject of the utilization of Land Records continued to receive attention. In criminal cases concerning land, in civil suits for arrears of rent and possession, in partition and land acquisition proceedings, in certificate cases, in preparing sketches of the scenes of crime, in making chaukidari assessments and in almost every branch of revenue work, the records, it is reported, have been constantly consulted and utilized.

The extent to which the records are utilized and the value that is attached to them depends, however, to a considerable extent on the action of the Collector or Deputy Commissioner of the district. The junior and more inexperienced officers of the Provincial and Subordinate Executive Services and even senior officers of those services who have not much experience of Revenue work naturally look to him for guidance in such matters.

The special importance of the record-of-rights in Chota Nagpur has not been lost sight of in those districts for which a record-of-rights has been prepared. I have not had any opportunity of examining any of the records of the Singhbhum Collectorate ; but, the facts brought to my notice during the year indicate that Mr. Lister, the Deputy Commissioner of Hazaribagh, and Mr. A. E. Scroope, the Deputy Commissioner of Ranchi, insisted on the record-of-rights being thoroughly examined by the subordinate Courts in every case in which the possession of land, or any incident of a tenancy was in dispute.

CHAPTER II.

[*See* Appendices I to VI.]

SETTLEMENTS OF LAND REVENUE.

KHURDA GOVERNMENT ESTATE IN PURI.

Area 883 *square miles*; 1,377 *villages*; 219,508 *tenants*; 8,40,490 *plots.*

16. *Programme.*—The programme consisted of attestation and assessment of rents, draft publication, disposal of objections under sections 103A. and 104E., *janch*, fair copying, final publication and supply of tauzi rolls to the Khas Mahal office. The only items of work remaining at the close of the year were the final publication of the records in about one-third of the area, the preparation of copies of khatians for the Mutation Office and the Sarbarakars and of the tauzi rolls for the Khas Mahal office.

17. *Staff.*—Babu Sudarshan Das, Deputy Collector, was the Settlement Officer throughout the year. He was assisted by four Assistant Settlement Officers of the rank of Sub-Deputy Collectors, who were employed for periods varying from $10\frac{1}{2}$ to 2 months.

18. *Attestation.*—The same procedure was followed as in the Orissa Revision Settlement with necessary modifications to suit local conditions. The work was simple and disputes were very few. Over 51,500 mutations and modifications in the records were effected. These changes concerned under-tenants and the raiyats of small revenue-free holdings, in which mutations had not been made during the course of the Milan Khasra operations. At the attestation stage, further enquiries were made into encroachments, with the result that 1,642 acres of illicit cultivation were discovered and dealt with.

The only contentious questions that arose concerned the grazing and forest rights of the tenants. The existing rights were duly recorded in a special Khatian prepared for the purpose, and they have been draft published. No objections were made to the entries recorded during the objection stage; but, just as the records were about to be finally published, the Khurda Khas Mahal Department raised the question of their correctness, and it was suggested that this part of the record be not published. The khatian of jungle rights has, however, been prepared with great care. The records so prepared are also the outcome of judicial proceedings, and the proper procedure is to impugn the correctness of the entries by lodging formal objections. The question is pending with the Commissioner for decision. Meanwhile the publication of the khatian of jungle rights has been held in abeyance.

19. *Rent Settlement.*—The Settlement Officer originally suggested that there should be an all-round enhancement of 3 annas in each rupee of rent. This appeared to me to be too heavy an enhancement in view of the fact that the rents were fixed only 15 years ago, though it might well have been demanded owing to the great rise in prices which has taken place in the interval, and, if Government had elected to demand the full enhancement leviable under the provision of section 32 of the Bengal Tenancy Act, a still heavier enhancement would have resulted. The size of the Khurda cultivator's holding is, however, small, the average is only about 1·6 acres—and it is not, of course, the policy of Government to demand from its tenants the full amount of rent which the law permits. Local enquiries were made with the object of ascertaining the proportion of the value of the gross produce it was proposed to take as rent, the size and productive capacity of the average holding and the incidence of the existing rent as compared with rents in the rest of Puri, and the enquiries into the general economic condition of the Khurda raiyats were tested by the results of extensive crop-cutting experiments.

It was finally decided to fix an all-round enhancement of 2 annas in the rupee on the rents of all agricultural holdings including homestead lands. The existing rates of rent were, however, not changed in the case of *chandina** and

* Homestead lands of shopkeepers, artizans, and those of the labouring classes, who, having no arable land in the village, pay rent for homestead lands only.

bagait (orchard) lands, which have not been affected by the rise in prices. The estimated increase in the rental of the estate is Rs. 48,000 per annum. No objections were made to the enhancement during the currency of the proceedings. The rents of under-tenants were generally left unchanged, and very few landlords applied for enhancement, the incidence of the existing rents being already high. The rates of rent now settled throughout the estate appear to be still low, as compared with the rates levied in the remainder of the district and the zamindari estates of Orissa, and the incidence does not appear to exceed one-twelfth of the value of the gross produce of the land on the average.

Although the provisions of section 40 of the Bengal Tenancy Act were generally well known, no applications for commutation of produce rents were filed. The raiyats of the petty tenure-holders are, as a rule, heavily indebted to their landlords, and did not, therefore, venture to apply, while the tenants of estates dedicated to religious purposes did not take advantage of the provisions of the law, for fear of incurring the wrath of the idol for whose benefit the endowment was created.

20. *Miscellaneous.*—Draft publication followed immediately on the completion of attestation. The system of publishing the records at central camps was highly successful. The attendance of the raiyats was generally good, although coercive measures had to be taken in respect of some of the Sarbarakars. Rent-receipts are generally granted. The existing system of levying grazing fees, however, affords opportunities to the Sarbarakars to misappropriate a portion of the fees by withholding rent-receipts. An improved system of assessment is under consideration.

CHAPTER III.

[*See* Appendices I to VI.]

PERMANENTLY-SETTLED ESTATES.

Bihar Settlement.

21. *Staff and extent of operations.*—Mr. J. A. Hubback, I.C.S., was Settlement Officer of South Monghyr, Patna, Shahabad, and Gaya till 7th December, when Mr. P. W. Murphy, I.C.S., took over charge. Mr. Murphy went on leave on 19th September and was succeeded by Mr. E. L. Tanner, I.C.S.

Mr. A. B. Duncan, I.C.S., was in subordinate charge throughout the year and Mr. E. L. Tanner, I.C.S., until he became Settlement Officer. The number of Assistant Settlement Officers employed during the field season and recess was 27 and 21, respectively. Of the Assistant Settlement Officers employed during the field season 2 were Civilians, 8 were Deputy Collectors, 18 were Sub-Deputy Collectors, 3 were Munsifs, and there was one Professional Survey Adviser.

Patna District.

Area, 1,943 *square miles*; 2,510 *villages*; 5,27,810 *tenancies*; 34,13,654 *plots.*

22. *Conclusion of operations.*—The operations were closed after the disposal of the few remaining suits and applications. In five cases under section 105 relating to 149 tenancies, an enhancement of 9 per cent. was allowed on the ground of rise in prices; 151 applications under section 40 were also disposed of resulting in an aggregate commuted cash rent of Rs. 4,663-6-0 equivalent to an incidence of Rs. 10-8-0 per acre.

23. *Recovery of cost.*—The balance of Rs. 17 shown in last year's report was collected.

GAYA DISTRICT.

Area, 3,880 square miles.

24. *Programme.*—The programme of original work consisted of the cadastral survey, preliminary record-writing and cadastral recess work of 1,109 square miles of thanas Aurangabad, Nabinagar, Arwal and Daudnagar. The whole programme was completed. The revision programme is dealt with in paragraphs 59 to 65 of this report.

25. *Cadastral Survey and Khanapuri.*—The progress of Cadastral survey and record-writing was somewhat retarded by difficulties connected with the comparison of boundaries of the newly-surveyed villages with those of the adjoining previously surveyed areas.

The detailed survey was checked by 3·98 linear miles of *partal* per square mile in addition to a block *partal* of 177 acres in village sites and 132·54 linear miles of independent survey of the outer boundary. The check was adequate.

The number of fields to the square mile was 1,193 on the average. The incidence, however, varied considerably from place to place and ranged between 957 to the square mile in the south and 1,666 in the north; 16 per cent. of the plots were checked which is sufficient, although the percentage of check was below last year's standard.

26. *Disputes.*—Boundary disputes averaged one to every 2·4 square miles. Out of a total of 39,747 internal disputes filed all were decided excepting 76, which were left to be dealt with at attestation. The average was 36 disputes per square mile or one for every 33 plots. The average in the northern circle, where land is valuable and cultivation intense, was 52 disputes per square mile or one to every 26 plots. The most common kind of dispute related to the method of paying the rent of lands held on produce rent. The raiyats usually claimed that the system was *batai**, while the landlords declared that the prevailing custom was *danabandi.*† Another source of dispute in the southern portion of the area was the practice locally known as *Chakat*, of commuting produce rents to money payments for a period. The landlords claimed a large number of holdings for which rent was paid in cash as *Chakat* holdings, while the tenants asserted that cash rents were payable.

27. *Daudnagar Municipality.*—As the Municipality could not afford the expense of a complete survey, the congested urban area was surveyed in blocks in the ordinary course of the work.

28. *Rent-receipts.*—As in Shahabad district, the omission of the landlords to give rent-receipts was found to be very common, and some flagrant cases were reported to the Collector : in 41 of the cases reported penalties were inflicted under section 58 of the Bengal Tenancy Act.

29. *Cost.*—The net cost rates of cadastral survey and record-writing worked out to Rs. 151 per square mile. A portion of the direct expenditure properly debitable to the revision operations is, however, included in this net rate.

The question of the cost of the Bihar surveys and settlements has received a good deal of attention during the year, as it appeared to me that sufficient attention was not always paid to the necessity for economical management.

The staff of employees has been standardized as far as possible, and a considerable number of supernumerary menials discharged.

There was some loss of efficiency at the commencement of the recess season owing to the failure of the cadastral office to make timely arrangements for the extraction of the areas of fields, with the result that the field staff of Amins and Inspectors could not be fully employed in the ordinary work of the office, until the statistical section of the office could commence work. The effect of this defect of organization was, however, minimized owing to the fact that the services of a considerable number of Inspectors were required for the boundary comparison of the previously surveyed areas with the boundaries of the present survey. Taking into account the incidence of the plots, the cost rate has, however, fallen, and the present Settlement Officer, Mr. Tanner, is devoting a considerable amount of attention to the question of cost.

* Equal division of crop between landlord and tenant after portion of expenses of cultivation has been paid.

† Assessment by appraisement of the crop before it is cut.

Shahabad District.

Area, 4,194 square miles; 6,025 villages.

30. *Programme.*—The programme consisted of the attestation, draft publication and disposal of objections under section 103A., the recess work of an approximate area of 806 square miles in thanas Dehri and Sasaram, the final publication of the records and recovery of costs in the six northern thanas of the district, the disposal of a heavy balance of suits and applications under sections 106, 105 and 40 of the Bengal Tenancy Act and the decision of suits under section 104 (settlement of rents in Government Estates and temporarily-settled estates) of thanas Mohania, Bhabhua and Kharghar.

31. *Attestation.*—The work was generally simple.

32. *Boundary Disputes.*—Several boundary disputes between villages were instituted in the hill area (the Kamur hill) at attestation. Although it is unusual to accept boundary disputes for decision after the survey stage is completed, it was found necessary to take cognizance of these disputes, in order that the village units might be properly determined and demarcated.

In several cases the disputes were of a formal character, the parties agreeing to abide by the Revenue Survey line, which had to be relaid. In other cases, however, the opposing parties agreed that the Revenue Survey line should not be followed as it did not follow the natural boundaries and had obviously not been surveyed by the Revenue Surveyors themselves. Disputes between Government estates and zamindari villages were greatly complicated by the prevailing uncertainty as to the character and incidents of the estate known as the Banskati Mahal. This mahal, which bears a separate tauzi number in the Collectorate register, consists of an incorporeal right to levy dues on the spontaneous products of the jungle and from the owners of certain classes of cattle that graze in it. It is not confined to villages in which the sole proprietary right is vested in Government, but at one time extended over the whole of Rohtas pargana, though its extent has been curtailed by exemptions granted to the owners of three neighbouring estates. The slopes of the Kamur hills are unsuitable for cultivation, and the only criterion of possession was the right to levy dues on forest produce and the right to lease lime quarries. The opposing claimants took no interest in the question in which village these areas should be included, their sole concern being to obtain a declaration that the right to collect forest dues was vested on them.

The boundary dispute between villages Anandi Chak and Jaitipur illustrates the futility of expensive legal proceedings in the Courts when all persons affected are not made parties. Disputes regarding rights in the river which separates the two villages had been the subject of prolonged litigation. Government, the largest shareholder in Anandi Chak, was, however, not made a party to the suit and in spite of the Privy Council's judgment, the dispute is still unsettled.

At the time of the Revenue Survey, Kachuhar fell in the Banskati Mahal; but as no one took any interest in the slopes of the hill except the farmer of the Banskati Mahal, the slopes, which are unculturable, were included in the plateau village of Kachuhar. It appears to have been the intention of Government at the time of the grant to Mr. Bingham to allow him merely the proprietary rights in Kachuhar mauza, reserving to themselves the Banskati rights. After prolonged negotiations, Mr. Bingham, however, was given not only the Banskati rights on the plateau but also those on the slopes.

These slopes are of great importance to the villagers of the plains as they collect wood from them for their domestic and agricultural use and graze their cattle there. As inhabitants of the Banskati Mahal, they have always possessed the right to do so; but the proprietors of Kachuhar have constantly endeavoured to deprive them of these rights. Fruitless attempts have been made by former Collectors to have the dispute settled amicably, and an endeavour was made to effect a compromise between all parties in the course of the Settlement operations. Negotiations, however, again fell through, and the disputes have been decided according to strict law rather than equity.

33. *Rent Disputes.*—As usual, rent disputes were very common and were due, in almost every case, to the failure of the landlords to grant proper rent-receipts. In several cases proceedings under section 58 of the Tenancy Act were taken against defaulters, and in 40 cases the landlords were fined for failure to comply with the provisions of the law regarding the grant of receipts. The average penalty inflicted was, however, only Rs. 12, which seems inadequate in view of the prevalence of the offence and the disputes to which the omission gives rise. Very much heavier penalties were imposed by the Deputy Commissioner of Hazaribagh for the failure to grant receipt in his district, although the failure to do so is not nearly so common as in Shahabad.

Attention was drawn in paragraph 31 of last year's Report to several cases in which landlords had succeeded in coercing tenants through the medium of cases instituted in the Criminal Courts during the pendency of settlement operations. In the previous year the settlement at attestation of a number of disputes relating to village Khajura in thana Bhabhua was postponed owing to the proceedings taken by the Magistrate under section 145 of the Criminal Procedure Code. Several attempts were made both by the Settlement Department and the District staff this year to induce the parties to compromise and to undo the evil caused by the order under section 145. Both sides, however, proved obdurate: no reliance could be placed on the landlord's papers. The record was, in the circumstances, prepared on the basis of the Magistrate's order with a note that the plots in dispute had been declared by the latter to be in the malik's possession. The Attestation Officer, after enquiry on the spot, had come to a contrary conclusion; but, as the Magistrate's order was *res judicata* as regards possession, effect had to be given to it.

In the hill area a custom was found to prevail whereby tenants pay rent for paddy land only, and are allowed to hold as much land as they can conveniently cultivate under dry cultivation (*bhit*) free of rent as a reward for settling in those inhospitable tracts.

34. *Proprietary rights in the bed of the Sone.*—Prolonged investigations were made with a view to deciding the adverse claims of Government and private proprietors to proprietary right in the bed of the Sone river. Several test cases were taken up at my suggestion and evidence was heard at length by Mr. Duncan, I.C.S. There was clear evidence in some cases that the bed of the Sone had not been included in the estates of the riparian proprietors at the time of the Permanent Settlement, while, in others, the evidence was inconclusive. The net result was to induce the conclusion that the question could not be decided without investigating the case of each village separately, and, as the Settlement Officer is not authorized to identify estates according to title or assess land held in excess of the settlement, the representatives of Government and the private proprietors both agreed that the expenses of the enquiry would not be justified, and that the area in dispute should be recorded as "Sone river" and that the proprietary rights should be left undefined.

35. *Relations of landlords and tenants.*—If the relations of landlords and tenants were to be gauged by the number of disputes instituted by either party against the other, the result would indicate a very unsatisfactory state of affairs. In some cases relations are undoubtedly very strained. The presence of numerous disputes, however, very often only serves to show that both the parties are beginning to realize their respective rights and desire to have their rival claims decided and defined through the arbitrament of the Settlement Courts. A normal number of disputes occurring at attestation may, therefore, be often considered as a healthy sign, while their absence frequently indicates the existence of sinister conditions. As illustrating these remarks, it was found, for instance, in one village that the tenants of the humbler castes were so much under the thumb of their Brahman landlords that at first they were unwilling to put forward any claims at all. They filed a petition requesting that their rents be settled under section 109C., and agreeing to all the claims of their landlords. The latter, it was found, had no evidence whatever to support their claims, while an examination of old papers disclosed the fact that rents had been abnormally and illegally enhanced and that the existing rents could not be regarded as fair and equitable. The proposed compromise was accordingly rejected and the enhancements cut down. In another village, the landlord of which had settled in Benares and had given up all interest in worldly affairs,

it was found that his representatives not only failed to put forward any claims, but admitted all the claims of the raiyats. Care was, however, taken at attestation to see that the just claims of the successors in interest of the landlord were not prejudiced, although in those cases in which he had definitely renounced his claims, effect had to be given to such renouncements.

36. *Objections under section* 103*A*.—The decrease in the number of institutions continued. The incidence of these disputes was only 6 to the square mile against 11 and 50 in the previous two years. The number allowed was about 10 per cent. Most of the objections related to money rent and were filed by landlords against tenants and *vice versa*.

37. *Settlement of fair rents in Government estates and temporarily-settled estates*.—Proposals were submitted for the fair rent settlement of 4,380 tenancies, and the rent-rolls of 12,520 tenancies were confirmed. The enhancement allowed was about 12 per cent. In the semi-diara tracts, where the lands are peculiarly fertile and the cost of cultivation low, the full enhancement admissible under section 30(*b*) was allowed. In the inland estates, the increase allowed was comparatively small, the limiting rate being everywhere one-fifth of the value of the average gross produce as described in last year's Report. The rent settlement in all the Government estates in the six northern thanas was completed. Proposals for the settlement of revenue of over 200 estates were also submitted to the Collector in addition to the report regarding Mr. Mylne's estates.

38. *Settlement of rents in Zamindari areas*.—The total number of applications filed for settlement of fair rents under section 105 up to the close of the year was 6,952 concerning 58,903 tenancies. Of these applications only 890 concerning 6,633 tenancies related to the southern thanas of the district. The bulk of the applications, therefore, came from the six northern thanas. The total number of settled raiyats in the northern thanas being about three lakhs and in the southern thanas about 1,23,000, it will appear that landlords in the former thanas have sued one out of every six raiyats and in the latter one out of every twenty. The average enhancement was about one anna in the rupee. Most of the applications related to enhancement under section 30(*b*) on account of rise in prices of staple food crops. The rise in the price of staples would have justified an enhancement of two annas six pies per rupee, but the average enhancement allowed was less than half this amount. Revenue officers settling rents under section 105 of the Bengal Tenancy Act may allow the full enhancement admissible under section 30(*b*), provided the resulting rent is not inequitable. No standard of fairness is, however, prescribed in the statutory law, and, in the absence of any prescribed criterion, the Revenue officers have generally applied the principle of limiting the rent to one-fifth of the value of the gross produce, that is, they roughly ascertained or estimated the value of the gross produce of the lands, and fixed one-fifth of its value as the maximum rent, beyond which no enhancements would be admissible. The Special Judge confirmed the application of the principle in appeal. It must, however, be admitted that there are many practical difficulties in its application, although it is difficult to devise a fairer or more practical criterion.

39. *Commutation of produce rents*.—Out of 1,490 applications disposed of during the year, commutation was refused in 143 cases. The produce rents of 1,197 holdings, with a total area of 4,953 acres, were commuted. The cash rent fixed was Rs. 23,469, which gives an incidence of Rs. 4-11-0 per acre.

40. *Miscellaneous*.—Sales of proprietary rights are comparatively infrequent, and the prices paid were found to be about 72 times the land revenue payable, which shows that the State demand is very light, compared to the present value of the lands. Sales of occupancy rights are reported to be very rare. The average sale price for whole holdings in the area attested was Rs. 48-2-0 per acre and Rs. 140-5-0 per acre in the case of part-holdings.

South Monghyr.

Area, 2,287 *square miles* ; 2,018 *villages* ; 3,19,144 *holdings* ; 2,105,154 *plots*.

41. *Attestation and Publication*.—The attestation of the records of village Dhonrha, thana No. 307 (Shaikhpura), had been kept pending from the previous

year as there was some question as to whether the village was situated in Gaya or in Monghyr. It was found that it appertained to the latter district and the records have now been attested and finally published.

42. *Settlement of Babu Sukhan Singh's villages under section* 112 *of the Bengal Tenancy Act.*—In a resolution, dated the 5th September, 1913, orders were passed by the Board regarding the commutation of the rents of about 1,800 acres of *bhaoli* lands in seven villages of this estate, with the object of effecting a compromise between Sukhan Singh and his tenants, and securing a final and amicable settlement of all outstanding disputes. Maulvi Shamsuddin Haidar, Assistant Settlement Officer, was deputed to make a local enquiry and to suggest definite terms : his report was submitted in May last ; a petition of compromise was drafted, and the tenants were asked whether they were willing to abide by the terms. Petitions of compromise were signed and submitted to the Board towards the end of August, and it is hoped that effect will be given to the Board's resolution early this year.

43. *Case work under section* 40.—Twenty-six applications were filed in respect of village Dhonrha and 46 applications relating to village Manpur in Babu Sukhan Singh's zamindari were disposed of ; 273 applications appertaining to the same zamindari were pending on account of the injunction issued by the Sub-Judge of Patna.

44. *Recovery.*—The sum of Rs. 3,910 that was outstanding at the beginning of the year was brought under certificate and the certificate cases were made over to the Collector for disposal. Rupees 3,808 was realized and credited into the treasury.

CHOTA NAGPUR SETTLEMENT.

45. *Staff and extent of operations.*—Cadastral Survey and Settlement operations were in progress during the year in the districts of Hazaribagh, Ranchi and Manbhum. Mr. J. D. Sifton, I.C.S., was Settlement Officer till April 8th, when he went on six months' leave and was succeeded by Mr. J. F. W. James, I.C.S. Mr. T. W. Bridge, I.C.S., assisted by Mr. H. McPherson, Deputy Collector, was in subordinate charge of survey and khanapuri. Mr. Bridge went on leave on April 16th. Mr. J. A. Sweeney, I.C.S., was in subordinate charge of ten attestation camps during the field season and of the cadastral office during recess, until he left Hazaribagh to join as Settlement Officer of North Bihar on September 18th. Babu Basanta Kumar Roy, Deputy Collector, was employed throughout the year on settlement of fair rents and disposal of case work relating to parganas Barahabhum and Patkum in Manbhum district.

Forty Assistant Settlement Officers were employed during the field season, of whom 21 were employed on attestation and the remainder at headquarters and on the supervision of Cadastral survey and preliminary record-writing. The number dropped to 14 during recess. The staff of Assistant Settlement Officers consisted of 2 Civilians, 11 Deputy Collectors, 22 Sub-Deputy Collectors, 4 Munsifs and 1 Professional Adviser.

HAZARIBAGH DISTRICT.

Area, 6,906 *square miles* : 7,009 *villages.*

46. *Programme and progress.*—The programme consisted of (1) cadastral survey and khanapuri of 1,713 square miles (field and recess); (2) attestation and draft publication and cess revaluation of 1,881 square miles ; (3) case-work under sections 83(1) and 111(6), Chota Nagpur Tenancy Act, and settlement recess work in the attested area ; (4) final publication of the record-of-rights of the second season's area (1,806 square miles) ; (5) computation of costs in respect of nearly 3,287 square miles, and (6) disposal of suits under sections 87 and 130 and settlement of fair rents under section 85 of the Chota Nagpur Tenancy Act throughout the first two seasons' area. The bulk of the programme was completed. The settlement recess work was

exceptionally heavy; but the small balance which remained over at the end of the year has since been completed. There was some delay in attesting the records of the Hata Khas Mahal in Hazaribagh town; but this part of the programme has also been completed since the close of the year.

47. *Cadastral Survey and Khanapuri.*—The detailed survey was checked by 1·55 linear miles of *partal* per square mile in addition to a check of 10 per cent. of the quadrilateral lines on which the detailed survey is based. The amount of check was again insufficient. I have drawn the Settlement Officer's personal attention to the matter. The size of the average field was found to be 1·05 acres as against 0·57 in the previous year's area, while khanapuri or internal disputes, which related mainly to possession, dropped to 5 per square mile as against 8 for the previous year.

48. *Attestation.*—Twenty officers were employed on attestation. The percentage of raiyats recorded as having *Khuntkatti* rights was ·47 only of the total number, while the proportions of occupancy and non-occupancy raiyats were 86·78 (including settled raiyats) per cent., and 1·75 per cent., respectively. The percentage of settled raiyats (*Kaimi*) was 78·42, all other classes accounting for 11 per cent. The total area recorded as landlords' privileged lands was only ·28 per cent. of the total area dealt with. Landlords were given every opportunity to prove their claims to privileged lands according to law. There is, however, very little privileged land in this part of Hazaribagh. The landlords in some parts of the area appeared to have extraordinary ideas about the character of privileged lands. It is apparently the custom for the thikadars to demand that one-tenth of each raiyat's holding should be set aside as *manjhihas* (landlord's khas) and the raiyats are frequently foolish enough to surrender a share of their ancestral lands in obedience to this usage, which undoubtedly exists in many areas; in default of doing so, they agree to a correspondingly higher rent. I cannot think that the raiyats willingly surrender portions of their holdings in any case, and to counteract this abuse, the provisions of section 71 of the Chota Nagpur Tenancy Act, which prescribes penalties for the illegal ejectment of a tenant from his holding or any portion of it, were explained to the cultivators.

The most important question in the attestation work was the prevalence of illegal enhancements. The system of management by the Padma Raj has hitherto been to lease out the majority of the villages to thikadars on terms that really leave the latter little or no profit, if they collected only the legal rent. The *thikadars* reimburse themselves by enhancing rents all round, and the raiyats appear to agree more or less reluctantly, apparently on the assumption that they are bound to agree to the terms imposed by their landlords. The question of illegal enhancements in Chota Nagpur was discussed for many years and the criterion applicable was settled and finally embodied in section 26 of the Chota Nagpur Tenancy Act. This criterion was stringently applied by Attestation Officers, who had, indeed, no option in the matter and the rent recoverable according to law was recorded without regard to its present incidence. It is obvious from the records already prepared that the incidence of rent is very uneven and that the enhancements were made in the most arbitrary fashion with little or no regard to equitable considerations. The raiyats appeared to be generally quite ignorant of their rights. The restrictions on the transfer of raiyati holdings seem to be quite ineffective in Hazaribagh and mortgagees usually retain possession after the expiry of the five years' term as a matter of course. This question is receiving attention and the Settlement Officer has been asked to submit a full report at the end of the next field season as to the extent to which the provisions of the law have proved a failure, the causes, and the remedy, if any.

The average rate of rent per acre was found to vary from annas 5-8 to Rs. 2-0-8.

49. *Village tenures.*—Village headmen (confined mostly to Santali villages) and *doami thikadars* described at some length in last year's report, were also found in the area attested this year. The *doami thikadars* described in the last report were confined to the reclaiming classes; but it was found in a few cases this year that permanent *thika* leases had been granted

to Brahmans and others by a proprietor near the borders of Gaya district, and the descendants of the original lessees have been left in undisturbed possession for about a hundred years. In many places groups of cultivators paying rent jointly, who are really raiyats, were, it was found, called *thikadars.* They are, however, in no sense tenure-holders, and they were accordingly recorded as raiyats in the record-of-rights. Enterprising families of cultivators who had originally taken settlement of all the lands in a village for personal cultivation and who were originally raiyats had, in some cases, it was found, become tenure-holders (*thikadars*) as cultivation extended and lands were settled by them with raiyats. Such families were recorded in the settlement records as tenure-holders in regard to the tenants holding under them, while their customary rights in their own ancestral holdings were safeguarded by recording them as settled raiyats within their own tenures.

50. *Agrarian conditions.*—The Settlement Officer gives the following account of the agrarian conditions in the Markacho, Ganwan, and Satgawan estates :—

Markacho.— "The relations of landlord and tenant were found to be particularly strained in the estates of Markacho, Ganwan, and Satgawan. The Markacho estate consists of the tenure of Markacho, Chalkusa and Dharguli, the property of Babu Jado Charan Singh, which was under management as an encumbered estate in the years 1951 to 1965 *Sambat.* Before the estate was taken under management rents were, as commonly happens in such cases, unduly enhanced. In this case the enhancement was about 50 per cent., and the ostensible ground was the release of the raiyats from prædial conditions. The prædial conditions were not so onerous as to justify such an increase in rent; and the raiyats maintain that they agreed to the enhanced rent only on condition that the former rent should be restored when the estate was released from management. This was not done, and, after the release of the estate, the prædial conditions were reimposed. The result was naturally considerable discontent among the tenantry. Attempts were made in many villages to raise the area of landlords' privileged lands to twenty-five per cent. of the whole area by forcible dispossession of raiyats; and throughout the tenure the relationship of landlord and tenant was altogether unsatisfactory."

Ganwan.— "The Tikait of Ganwan was formerly exceptional among zamindars owing to the amount of personal labour which he devoted to the administration of his *Gadi.* Of late years his ill-health and increasing age have prevented him from exercising that supervision which he formerly gave: and everything has been left to the amlas of the estate. No rent-receipts had been issued to the raiyats for some years; but when this survey began the amlas started busily issuing back receipts. The books of the estate showed arrears of many years' rent against most of the raiyats; and as a raiyat paid his annual rent it was ordinarily credited to the account for a year, for which rent-suits would have been barred by limitation. The Deputy Commissioner has persuaded the Tikait to agree to preparation of arrears registers by the Attestation Officers showing the amount actually due from each tenant, and to wipe out time-barred arrears. These so-called arrears are certainly wrongly so described; but it appears to be doubtful whether the Tikait's local rent-collectors are to be trusted to observe this arrangement."

Satgawan.— "This *Gadi* is now under management as an encumbered estate. It is very heavily encumbered and bad blood was created between the zamindar and his tenants by his desperate efforts to raise money in the years immediately preceding his coming under management. Half produce rents prevail in this *Gadi,* which largely explains the tension that was produced, since the raiyats were already paying so high a rent that they could hardly bear the imposition of new *abwabs.* The system was formerly that of payment by division of the crop (*batai*); under the Encumbered Estates management the system of appraisement (*danabandi*) has been introduced. Among the tenants the *danabandi* system is as unpopular here as elsewhere in this province. It is an objectionable system from the power which it gives to the appraising amla; and it would be more satisfactory if these rents could be commuted."

51. *Computation and recovery.*—The demand on account of the first season's area (1,480·57 square miles) and of 1,806 square miles of the second

season's area was computed and amounted to Rs. 6,65,339. Recovery operations had, however, to be postponed owing to prevalence of scarcity in the district. Only Rs. 3,049 was deposited by parties in order that they might obtain their copies of khatians and khewats.

52. *Cost.*—The year's cost-rate for cadastral survey and khanapuri worked out at Rs. 72·18 against Rs. 136·21 per square mile in the previous year's area. A sum of Rs. 25,016 was, however, credited to the Hazaribagh Cadastral Survey on account of the transfer of instruments, tents, etc., after the completion of the survey of the district, to Palamau and the Kolhan. The actual cost-rate for the year worked out at Rs. 86·8 per square mile. This cost-rate is very low, and though it is to some extent attributable to the fact that the area dealt with is sparsely populated, covered with jungles, and comparatively free from agrarian disputes, the result is highly creditable to the officers who were in charge of the cadastral survey operations.

The organization of the work both in the field and recess was exceedingly good: there were no unnecessary delays, no superfluous staff was employed, and the supervision was strict. These factors contributed to the satisfactory result.

The total cadastral cost-rate may be distributed as follows:—Detailed survey, Rs. 25·61; Khanapuri, Rs. 20·21; completion of maps, Rs. 5·40; area computing, Rs. 6·63; and completion of records and statistics, Rs. 14·33.

The total cost of all operations in the district including Traverse Survey up to the end of the year was Rs. 15,51,694, and the estimated expenditure necessary to complete the settlement is Rs. 2,48,000, so that the total cost of the operations will come to about Rs. 18,00,000.

53. *Miscellaneous.*—The system of draft publishing the records at attestation camps continued to work well as also the system of final publishing the records under the supervision of an Assistant Settlement Officer.

Several instances of failure to give proper rent-receipts are reported. The facts were reported to the Deputy Commissioner, who appears to have inflicted adequate penalties.

The records of the first season's area, with the exception of those of thana Pitarbar, were consigned to the Deputy Commissioner's record-room.

The Deputy Commissioner, Mr. E. Lister, I.C.S., has noted as follows on the usefulness of the department in district administration:—

> "I have found that the Settlement Officers have given the greatest help in the ordinary district administration during the past year. They have made inquiries in many criminal cases arising out of land disputes, which have been of the greatest assistance in disposing of those cases; and miscellaneous revenue matters have also been referred freely to them for report. But the most valuable work has been done in bringing to my notice the grosser cases of general oppression by landlords. In particular the systematic misconduct of the landlords of Ganwan and Markacho was exposed so thoroughly that I was enabled to interfere with a reasonable hope of effecting improvement. In the case of the encumbered estate of Satgawan, great assistance was given in putting right a thoroughly bad system. I am particularly indebted to Babu Surendra Nath Sen, Mr. J. E. Coutts, and Maulvi Muhammad Hamid for these inquiries. The head-quarters office also responded to all requests for information and help in such a way as to deserve my acknowledgments."

Ranchi District.

7,104 *square miles*; 3,954 *villages*; 368,059 *tenants*; 3,800,643 *plots.*

54. *Completion of operations.*—The whole programme, except the depositing of the records of a few thanas, was completed in the previous year. During the year under report, the remaining records were deposited in the Deputy Commissioner's record-room. A sum of Rs. 27,172 was also recovered on account of costs.

MANBHUM: PARGANAS BARAHABHUM AND PATKUM.

934 *square miles*; 859 *villages*; 59,340 *tenants*; 6,29,372 *plots*.

55. *Programme.*—The programme consisted of (1) disposal of suits under sections 87, 130 and 252 of the Chota Nagpur Tenancy Act; (2) settlement of fair rents on applications filed by landlords under section 85(2) (*i*) of the Chota Nagpur Tenancy Act and under Government Notifications under section 85(2) (*ii*) of that Act directing the settlement of the rents of *khuntkatti* tenants, headmen and tenants of the Ghatwals; and (3) recovery of the balance of the costs. The programme was completed, with the exception of the recovery of costs.

56. *Rent Settlement.*—All applications under section 85(2)(*i*) of the Chota Nagpur Tenancy Act, except 22, were disposed of. In the case of the latter, the landlords had applied for enhancement of the rent of tenure-holders who claim to be *mukarraridars*. The results of certain cases now pending in the High Court and before the Judicial Commissioner, in which the status of these tenure-holders is to be decided, are awaited before the settlement of rents is taken up.

The result of the fair-rent settlement throughout the parganas is an increase of 22·34 per cent., which was granted mainly on the ground of rise in prices and increase in the areas of holdings. In the cases of *khuntkatti* raiyats it was generally found that their rents were not liable to enhancement and no enhancement was granted. *Khuntkatti* raiyats found to be in possession of land not yet assessed to rent, were assessed to rent for their excess lands.

Each application for the enhancement of the rent of tenure-holders was disposed of on its own merits. Generally, however, an allowance of 20 per cent. on the assets of their tenures was made to the tenure-holders as their profit and as remuneration for their collection charges.

The enhancement of raiyats' holdings under Ghatwals came to about 40 per cent.

57. *Ghatwali tenures.*—With a view to prepare the way for cash commutation of Ghatwali services, should this be decided on, registers were prepared showing (1) the name of each *tabedar*, the extent of his holding, its value at village rates, amount of *panchak* and cess payable; (2) total rent settled on raiyati tenancies included with each Ghatwali tenure; (3) value and extent of khas lands of village sardar; and (4) annual value of Ghatwals' jungles, etc. In the course of preparing these registers, it was found in several instances that the road cess levied from Ghatwals was considerably in excess of the amount legally recoverable. The Deputy Commissioner's attention was drawn to the matter.

58. *Cost of operations.*—The total cost of the operations up to the end of the year was Rs. 2,91,813. The expenditure on the remaining items of work can hardly exceed Rs. 1,000; the cost rate thus comes to nearly 8 annas per acre.

The sum recoverable from landlords and tenants will be Rs. 2,19,460. A total sum of Rs. 2,42,994 has, however, been already recovered, and only Rs. 8,855 remains to be realized. There is thus a consider ableexcess recovery, and the estimates on which the recovery proposals were based have apparently not proved to be very accurate.

CHAPTER IV.

[See Appendices I to X.]

REVISION SETTLEMENTS AND MAINTENANCE OF LAND RECORDS.

GAYA REVISION SURVEY AND SETTLEMENT.

Area, 781 *square miles*; 983 *villages*.

59. *Programme.*—The programme consisted of the revisional survey and record-writing of the villages appertaining to the Belkhara Mahal, the Tikari

Estate, the Deo Estate and the Maksudpur Estate which fall in thanas Nabinagar, Aurangabad, Daudnagar and Arwal. These villages had been previously surveyed between the years 1893 and 1904. The old traverse stations were utilized and the programme was completed.

60. *Progress.*—The villages were widely scattered. Progress was slow at first, and the recorders were unable to work up to the prescribed standard of 120 plots per diem. The outturn, however, improved later in the season; but progress was again retarded by the necessity of extracting areas at which the recorders were not expert. In January it was decided to drop area extraction in the field, with the result that progress again became more rapid and recording was finished early in April.

61. *Check of Survey and recording (preliminary record-writing or khanapuri).*—The survey of only 5·30 per cent. of the new plots *(tukras)* was checked.

The total number of plots finally recorded was 4,11,316 against an original total of 3,17,140. The increase of 23 per cent. in the number of plots is fallacious and is accounted for by the fact that in many cases the old field boundaries which no longer exist on the ground, have been retained in the maps, in order to preserve the continuity of the old field numbers. Several villages were surveyed *de novo* for experimental purposes and in these cases it was found that the increase in the number of plots since the last survey amounted to only about 10 per cent. on the average. Fifteen per cent. of the total number of plots (4,11,316) were checked. The check of record-writing was adequate; but, the partal of the re-survey appears insufficient. It remains, however, to fix a standard for the latter.

62. *Disputes.*—Internal disputes averaged 31 to the square mile. The incidence of these disputes was, therefore, appreciably lower than in the adjoining newly-surveyed areas, and as was to be expected they were found to be much easier to decide.

63. *Recess work.*—Recess work proved difficult, as experiments had to be made to ascertain how far the ordinary processes could be curtailed. The experience gained has, however, shown that, if the revised records and statistics are kept up to the standard of the original survey, which is essential, the ordinary processes of examination, comparison and correction must be gone through. There will thus be little saving in the cost of the recess work, as compared with the corresponding cost in original survey. The records and maps were subjected to the same course of examination as in original surveys and the statistics were prepared on the the same lines.

64. *Attestation.*—Experimental attestation was done in 52 villages comprising an area of 33 square miles immediately after the completion of the survey and record-writing. The bulk of the villages dealt with belonged to the Deo Estate which had been surveyed in 1900—1902 under the management of the Court of Wards. Disputes were found to be very few and unimportant and the work was generally simple. It has been, however, found impracticable to attest the records in the same year as the survey is completed. It has been shown above that the extraction of areas in the field was unsatisfactory: after completion of the field work, the area of the fields have therefore to be extracted and totalled for each tenancy, while the records and maps have also to be examined. The time taken to carry through these various processes precludes the possibility of starting attestation before the end of the field season, and both the officers and landlords and tenants naturally view with disfavour the prospect of settlement proceedings prolonged throughout the hot weather and rains. I am, therefore, of opinion that the attempt to complete the survey, preliminary record-writing, and attestation of the records within the compass of one field season is impracticable and should be abandoned.

65. *Cost rate.*—The net cost rate of revisional operations, omitting the experimental attestation work carried through, worked out at Rs. 147 per square mile, that is, only Rs. 4 per square mile less than the cost of the original survey. The cost of the revision operations in Gaya is not, however, a fair test of the cost of revision work in general. The area under revision was very scattered: the difficulties of supervision were, therefore, greatly enhanced, and the staff had no previous experience of this class of work.

Orissa Revision Settlement.

Area, 5,196·62 *square miles* ; 10,757 *villages* ; 23,48,068 *tenants* ; 9,076,741 *plots.*

66. *Staff.*—Mr. J. F. W. James, I.C.S., was Settlement Officer until 14th January, when he was relieved by Babu Madhab Chandra Misra, Assistant Settlement Officer, who was succeeded by Babu Hari Das Roy, Deputy Collector, on 1st March, 1913.

67. *Completion of operations.*—The balance of work remaining over from the previous year consisting of the disposal of a few cases, the preparation of Milan khasras for 5,085 and 2,119 villages, aggregating 67,36,938 plots, in the districts of Cuttack and Puri, respectively, noting of rents fixed and of the decisions in suits in the finally published records and the deposit of records in the Collectorates, was completed. The accounts of the Settlement were finally cleared: the gross expenditure since the inception of the operations amounted to Rs. 14,74,953 and the total receipts to Rs. 3,48,235. The net expenditure has, therefore, been Rs. 11,26,718, which gives an incidence of Rs. 215·80 per square mile.

Experimental Maintenance of Records in Orissa.

68. *Programme.*—The arrangements made for the maintenance of records under the triennial scheme were continued during the year under report. The preliminary records which were prepared related to 1,205 villages with 826,050 plots in the district of Balasore and 745 villages with 783,310 plots in the district of Cuttack, while the area attested covered 560 square miles with 1,171 villages, 793,375 plots and 214,928 holdings in Balasore, and 349·96 square miles with 715 villages, 754,244 plots and 214,242 holdings in Cuttack.

69. *Staff.*—The staff employed consisted of a Settlement Officer with 6 Assistants under each of whom was employed an establishment consisting of 3 Inspectors and about 25 recorders.

70. Fifteen per cent. of the total number of plots was checked by the various agencies employed ; the number of disputes was 20,792.

71. *Transfer of occupancy rights.*—Out of 173,784 occupancy holdings attested, 2,296 entire holdings and portions of 7,605 holdings, representing about 6 per cent. of the total number of raiyati holdings attested and about 1·8 per cent. of the total area included in these holdings, were found to have been transferred by sale. It is reported that the majority of the transferees were cultivators, *viz.*, 8,355 as against 387 landlords, 1,143 mahajans and 16 lawyers.

72. *Changes.*—The percentage of changes made in the record-of-rights was as follows :—

District.	Khewat.	Khatian.	Map.
Balasore ...	63·36 ...	54·54 ...	2·08
Cuttack ...	47·10 ...	81·66 ...	4·90

The records were examined during recess, and the corrections are being embodied in the Superintendent's copies.

73. *Cost.*—The net expenditure during the year was Rs. 65,676 or about Rs. 4,200 per lakh of plots maintained, as against Rs. 89,166 or about Rs. 6,600 per lakh of plots in the previous year. The result is satisfactory and indicates that strict attention has been paid to economy.

74. *System of work.*—A detailed report on the subject of maintenance has been submitted by my predecessor and the final orders of the Government of India are still awaited. The total number of fields for which records will have to be maintained in Orissa is roughly 90 lakhs. Operations have already been commenced throughout the whole of Balasore, and part of Cuttack ; Puri district has so far been exempted from the scope of the scheme. The system has been examined during the year and certain serious defects are apparent. Although it is costly, control and supervision have not been effective, while the operations

have been unduly prolonged in all the areas dealt with, and have proved harassing to the people.

The defects of the experimental scheme cannot, however, I am afraid, be altogether removed, as they are due to circumstances peculiar to Orissa. There is no class of trained surveyors or recorders available in Orissa, as in Upper India, while the Oriyas recruited and specially trained for the purpose do not appear to have any pride in their profession and are almost invariably inclined to shirk the field work. The standards of survey and record-writing are, therefore, altogether inferior to those prevailing in the Chota Nagpur and Bihar Settlements. It will, no doubt, be possible to raise the standard in the course of time, and I have this year sent a contingent of the recorders to be trained in the Chota Nagpur Surveys with that object in view. I am convinced, however, that, if maintenance is to be continued in Orissa, the standard of work will be poor for a long time to come, and there is no doubt whatsoever that far better results could be attained by the periodical revision of the record with the help of a trained agency than by continuous maintenance, while the cost would also be less. At the beginning of the present field season, I made local enquiries in Cuttack district with a view to ascertain the opinions of the landlords and tenants themselves. The landlords are all unfavourably disposed to the scheme, with the exception of a few petty tenure-holders who get *salami* from the raiyats for mutations effected by the recorders free of cost, while the raiyats, as a rule, dislike the proceedings and the harassment to which they are subjected. The proceedings, they say, fulfil no useful purpose, as the Assistant Superintendents cannot decide disputes and have at present no legal powers.

The recorders themselves display little zeal for their work; there is an idea abroad that Maintenance will be stopped very soon, and they feel that their posts are temporary. It is well known that Assistant Superintendents have no power to enforce attendance or to prepare any record, and that the record of maintenance, properly speaking, is of no evidentiary value. Some landlords are, therefore, beginning to dissuade the raiyats from putting in an appearance, and if this movement should develop, the experimental scheme must inevitably collapse.

The dislike of the raiyats for the proceedings is attributed to the natural reluctance of the Oriya to attend at record-writing and attestation, when he conceives that they will be of no effect whatsoever, and to the further fact that he is afraid, unless he propitiates the recorder, that the latter will work him some mischief. Although the recorder is generally a local man, it is admitted that his integrity is not above suspicion.

The Settlement Officer has evolved a scheme which may obviate some of the more patent defects of the present system, and I have asked him to try it as an experiment in one circle only and report the results.

Maintenance of Land Records in Sambalpur.

75. The following changes were effected during the year :—The system of showing the boundaries of fields or *kitas* as opposed to the boundaries of tenancies was abandoned, and the method of survey was in this respect brought into line with the system in vogue in the rest of the Province. Proposals which were made by me for the delegation of greater powers to the Deputy Commissioner and empowering him to appoint, transfer and dismiss Revenue Inspectors, were sanctioned at the close of the year under report and have been embodied in the Land Records Manual.

76. The prescribed amount of check work was attained by the Revenue Inspectors, who checked 10 per cent. of the total number of khasra entries. The Tahsildar and the additional Tahsildar stationed at Sambalpur failed, however, to test any khasra entries at all, while those stationed at Bargarh checked only 471 entries, which is inadequate. No adequate explanation has been given for the failure and the low percentage, and I have asked for explanations.

North Bihar Mutation Offices.

77. As in previous years, the experimental Mutation offices at Bettiah, Hajipur and Mahnar have proved to be failures. The net loss on the three offices during the year under report amounted to Rs. 2,138 as against Rs. 1,663 and Rs. 1,908 in the two previous years. As revision operations have now commenced in the district of Champaran, the Mutation office at Bettiah has been abolished under Government Notification No. $\frac{7729R}{VIL-6}$, dated 21st November, 1913.

Mutations in Government and Wards' estates.

78. The results of the mutations effected during the year under review in Government and Wards' estates, will be found in Appendix VII. In the Government estates, the standard number of mutations, *viz.*, 8 per cent. of the total number of tenancies, was attained in one, and exceeded in four districts. In the remaining districts, the percentage varied from 1 to 6·5 per cent. In the Deopura, Kaithwalia, Bangra, and Ramdaschak estates in Saran, in the Hardaspur estate in Darbhanga and in the Chandbali and Bhadrak salt gola estates in Balasore, no mutations were effected during the year. In the district of Saran, there are six estates, in two of which the number of mutations exceeded 4 per cent., while no mutations were effected in three estates and the remaining one is reported to have diluviated; no explanation of the low percentage and the absence of mutations has been given. Similarly, no reason has been assigned for the low percentage of mutations in Gaya, Monghyr, Purnea, and Hazaribagh; but the Commissioners have invited the attention of the Collectors concerned to the matter, and have asked for explanations. In Darbhanga, there are two groups of Government estates, in one of which the percentage of mutations was as low as 1 per cent; the low percentage is attributed to the fact that the Collector enhanced the rents (except in cases of mutations by inheritance) to Rs. 10 per bigha and hence very few sales and purchases took place, while the other group of estates is reported to have diluviated. The records of the Town Khas Mahal in Cuttack and of other Government estates in Puri and Balasore had been brought up to date during the recent revision operations. In Ranchi, the low percentage of mutations is said to be due to the recent final publication of the record-of-rights.

The average percentage of mutations in all Government estates, including those in which no mutations were effected, amounts to 13·98 per cent.

In the case of Wards' estates, the prescribed standard was attained in one, and exceeded in three estates. In the Chota Nagpur and Patna Divisions, and in the districts of Saran, Bhagalpur, Monghyr, and the Santal Parganas, of the Tirhut and Bhagalpur Divisions, the percentage of mutations was generally low. As already stated above, the low percentage in Chota Nagpur is attributed to the recent publication of the record-of-rights; in the Deo Ward's and Deo Rani's estates in Gaya, and in the Surjapur estates in Shahabad, the decrease in the percentage is said to be due to the revision operations and to the pendency of survey and settlement proceedings; in Saran the low percentage is ascribed to the non-recognition of the mutations of portions of holdings; in the Narhan Ward's estates, the number of mutations amounted to only 1·8 per cent., although a staff of Mutation Inspectors, Tahsildars and Patwaris was employed on mutation work and the settlement records were tested on the spot by these officers; in Bhagalpur the standard was attained in only two estates, and this is attributed to the practice of insisting upon the recovery of *chouth*, *i.e.*, one-fourth of the purchase-money before recognising the purchaser as a tenant. The Commissioner agrees with the present Manager of Wards' and Encumbered Estates in thinking that the practice ought not to be rigidly enforced. In the Bettiah Wards' estate, the percentage of mutations was much below the normal, but no explanation has been given. No explanation also appears to be forthcoming for the low percentage in the Santal Parganas. The Commissioners have asked for explanations, in both these cases, as required by the Board's Circular Order No. 11 of April 1903.

79. *Inspection of rent-rolls.*—The details of the results of inspection of rent-rolls by superior and inferior agencies have been embodied in Appendix X. As usual, the percentage of check in some cases amounted to 100 per cent., though in these cases no unreported mutations were detected.

The prescribed standard of 50 per cent. check of the rent-rolls was not attained in several estates, and no satisfactory explanation of the failure to reach the standard has been furnished.

CHAPTER V.

[*See* Appendix XI.]

MAINTENANCE OF BOUNDARY MARKS.

80. The work of maintenance of boundary marks continued to receive attention. The reports of the District Officers indicate that the inspection of the marks was on the whole fairly adequate. The details of the results of inspection will be found in a tabular form in Appendix XI. The following is a summary of the more important items.

81. *Patna Division.*—The boundary marks in the Government estates in the three districts of the division were found to be generally in fair order. Two marks in the district of Shahabad were reported to have fallen into the river Ganges. They cannot be restored till the bed of the river recedes to its former position. The preparation of the daffadari registers was completed during the year in the district of Patna, and the marks have been distributed and placed in charge of the daffadars concerned in all police-stations with the exception of Silao and Asthawan. In the district of Shahabad, boundary marks registers and maps for all the thanas, except Dehri and Sasaram, were made over by the Settlement Officer to the Collector. The daffadari registers of thanas Kharghar and Mohania were completed by the Collector and the marks were allocated to the daffadars and chaukidars concerned. The work is in progress in the other thanas.

82. *Tirhut and Bhagalpur Divisions.*—The systematic maintenance of boundary marks in the private estates of the Tirhut Division and in the portions of the districts of Bhagalpur and Monghyr lying north of the Ganges has been held in abeyance pending the verification of the marks during revision. The inspection and maintenance of the marks in the Government and Wards Estates were performed satisfactorily. The verification of the marks and their distribution to the custody of the daffadars were completed for two thanas in Purnea, four thanas in South Bhagalpur and six thanas in South Monghyr; out of the total number inspected 1·5 per cent. of the marks in Purnea, 5 per cent. in South Bhagalpur, and 3·1 per cent. in South Monghyr were found missing. In the district of the Santal Parganas, out of a total of 19,331 marks, 3,841 were inspected during the year, of which 123 were found damaged or missing. Of the damaged or missing marks, 54 were restored at a cost of Rs. 85-14-0, which was realised from the villagers concerned.

83. *Orissa Division.*—In the temporarily-settled estates in the districts of Cuttack, Puri and Balasore, the work of maintenance was under the control of the Revisional Settlement Department. The boundary mark maps and registers of the three districts were made over to the Collectors. In Sambalpur, the boundary marks were inspected by the patwaris at the time of the annual field-to-field inspection. Reports were received against 64 *mukaddams* for failure to keep the marks in good repair. The marks have been repaired and suitable action taken against the *mukaddams*. In Angul, 30 new pillars were erected on the boundary line between the district and the Feudatory States of Athmallik and Narsinghpur.

84. *Chota Nagpur Division.*—In the district of Ranchi, the verification and allocation of boundary marks were completed. All the marks are now in charge of the village chaukidars. There was one prosecution for wilful damage of a mark in thana Ghaghra of the Gumla Subdivision. The accused was convicted and the

boundary mark was restored at his cost. In the Government estates in the district of Palamau, several cases of encroachments on Government lands by *jagir* tenants were detected and enquired into.

In the absence of boundary mark maps and registers, it is not possible to take any action to secure the systematic maintenance of boundary marks in the Ghatwali tracts of the district of Manbhum. The marks are, however, carefully maintained as a rule by the Ghatwals themselves in their own interests. In parganas Barahabhum and Patkum, the verification and allocation of the marks were completed in respect of the area lying within thanas Barahabhum and Purulia. The work is in progress in thana Chandil. In Singhbhum, two boundary disputes between this district and the adjoining Feudatory States were decided and the boundary line demarcated.

85. *Fund for the Maintenance of Boundary Marks.*—During the financial year 1912-13, the following amounts were recovered in advance and transferred to the Fund for the Maintenance of Boundary Marks, bringing the receipts up to a total of Rs. 18,331: Rs. 1,866 in respect of parganas Barahabhum and Patkum in district Manbhum, Rs. 200 in respect of Killa Bishunpur in district Cuttack and Rs. 50 in respect of villages Arillo and Ratagarh in district Cuttack. The total expenditure up to the end of the financial year was Rs. 1,171-1-5, leaving an opening balance of Rs. 17,159-14-7. The amount expended during 1912-13 was Rs. 907-7-9, the details of which are noted below :—

Area.	Amount expended.		
	Rs.	As.	P.
South Monghyr	500	3	2
South Bhagalpur	357	4	7
Jaigir Mahals and Parikud estates in district Puri	50	0	0

CHAPTER VI.

Charge and Tours of the Director and Notice of Officers

86. *Charge.*—I was in charge of the Department of Land Records, Bihar and Orissa, throughout the year, and took over charge of the office of the Director of Surveys, Bihar and Orissa, from Colonel Crichton on the 21st of March, 1913.

87. *Tours.*—I spent 157 days on tour, of which 128 days were spent in inspecting the Settlement operations of this Province and 29 days in inspecting Traverse Survey and the Drawing Office. I visited the Rent Settlement camp at Purulia in the district of Manbhum twice, paid 4 visits to the Chota Nagpur Settlement, 3 visits to the South Bihar Settlement and one each to Orissa and Khurda.

88. I desire to bring to the notice of the Board the excellent work done during the year by several officers employed in this Department: Mr. Sifton, who was Settlement Officer of Chota Nagpur during the field season, maintained a high standard of work throughout. Mr. Tanner, although he has but recently joined the Department, did some very valuable work in Gaya in connection with the Revision Survey in that district; he became Settlement Officer of South Bihar towards the close of the year, and has rapidly acquired a practical knowledge of the practice and procedure of the Bihar Survey and Settlement. Of the Covenanted Assistants, Messrs. Sweeney and Bridge in Chota Nagpur and Mr. Duncan in South Bihar gave their respective Settlement Officers the greatest assistance in carrying through a heavy programme during the field season and recess. Mr. Sweeney has since been selected as Settlement Officer of North Bihar. Mr. Bridge's work in connection with the supervision and control of the Cadastral Survey in Hazaribagh deserves special mention. The field season programme was completed under his guidance with the least possible delay compatible with efficiency, and the work was well-organized throughout.

Merits of Officers.

Babu Hari Das Roy, the Settlement Officer of Orissa, has done a good deal, despite discouraging circumstances, to raise the standard of the Maintenance work in Orissa.

The majority of the officers of the Provincial and Subordinate Executive Services worked satisfactorily. I regret, however, that I am obliged to comment on the lack of zeal displayed by a minority. Notwithstanding the increase in the cadre and the prospects of promotion afforded to officers employed in Settlement work, some difficulty was experienced in obtaining the services of a full complement of officers to control and supervise field work. Though the members of the Subordinate Executive Service are primarily recruited for the discharge of executive functions, there were clear signs of unwillingness on the part of a considerable number to undertake strenuous work in the field or to undergo any of the physical hardships that are involved in the supervision of survey. The fact is remarkable, as most of the officers selected for this class of work are young men, who have been in Government service for a few years only. Four or five of them were declared unfit for Settlement work, and they accordingly reverted to general duty. Their ideal appears to be to remain at head-quarters, exercising magisterial powers and trying petty cases. The Subordinate Executive Service was, however, not created to supply officers of this class or calibre.

The following officers have been selected for special mention from this year's reports :—

Deputy Collectors.

Babu Surendranath Sen.	Mr. H. McPherson.
Lala Premnath Kapur.	Maulvi Muhammad Hamid.
Babu Phani Bhushan Mitra.	Babu Ramu Lal Varma.

Babu Basanta Kumar Ray.

Munsifs.

Babu Narendra Lal Bose.	Babu Tarak Nath Bose.

Sub-Deputy Collectors.

Babu Sarbari Kanta Gupta.	Babu Rajani Kanta Sen.*
Mr. J. E. Coutts.	„ Dhanmassi Panna.
„ H. W. Alderson.	„ Ashutosh Sen Gupta.
Babu Ramesh Chandra Chakrabatti.	„ Manoranjan Singh.
„ Sukdeo Narayan.	„ Pashupati Ghosh.
„ Phanindra Nath Gupta.	„ Bhagwan Mahapatra.

Others.

Babu Mriganka-Sekhar Mukharji.

PART II.—TRAVERSE SURVEYS AND DRAWING OFFICE.

CHAPTER I.

GENERAL SUMMARY AND GENERAL REMARKS.

Arrangements for control of Survey operations.

89. I took over charge of the office of the Director of Surveys, Bihar and Orissa, from Lieutenant-Colonel Crichton, C.I.E., I.A., on the 21st March, 1913, when he proceeded on leave. In view of Colonel Crichton's intention of reverting from Provincial employment to the Survey of India Department on the conclusion of his leave, and of the difficulties of obtaining the services of an Imperial Officer of the Survey of India for the remaining 6 or 7 years that will be required to complete the survey of the Province, it was decided to place the Survey Department of this Province under the control of the Director of Land Records, who should be, in future, designated Director of Land Records and Surveys. The Government of India conveyed their sanction to the arrangement in their order No. 1593-37-3, dated 6th October, 1913. The change in designation was

* Promoted to be a Deputy Collector since the above list was drawn up.

CORRIGENDUM.

Page 22, paragraph 88, last sub. para., under head "*Deputy Collectors,*" 1st column, 3rd line—

For "Babu Phani Bhushan Mitra" *read* "Babu Sudhanshu Bhushan Mitra."

gazetted in Notification No. 6955R., dated 2nd October, 1913, in the *Bihar and Orissa Gazette.*

Departmental rules.

90. The rules for the conduct of Traverse Survey in the field were collated and revised.

Programme and outturn.

91. The approximate programme of Traverse Survey classed as main operations in the districts of Gaya and Palamau was 2,523 square miles against an actual outturn of 2,576 square miles. In addition, seven isolated petty surveys and the traversing of the Sauria Paharia tract in the Santal Parganas were completed. The petty surveys consisted of relaying of the Revenue Survey or the Diara survey boundaries, the location of missing boundary pillars, traversing of Municipal areas, etc.

92. The traverse operations in Midnapore district and the other miscellaneous surveys appertaining to the Province of Bengal that were supervised by my predecessor, Colonel Crichton, were transferred to the charge of the Director of Surveys, Bengal and Assam, on 1st June, 1913, and these operations are, therefore, not discussed in this report.

93. The Ganges Diara Special Demarcation Survey, which was undertaken in season 1909-10, was postponed during the year owing to insufficiency of staff and to the necessity of completing work of a more urgent character.

Cost rates.

94. The approximate cost rate of traverse work in Gaya was Rs. 32·54 per square mile against Rs. 33·1 for the previous year.

The incidence in Palamau representing the first season's work in the area was 33·68 per square miles against an estimated cost rate of Rs. 40. The cost rate includes the cost of the heavy revision work which was necessitated by the hilly character of the country.

CHAPTER II.

[*See* Appendices XIII and XIV.]

DISTRICT SURVEYS.

District Gaya.

95. The programme of traverse survey in district Gaya consisted of the unsurveyed portions of thanas Jahanabad, Tikari, Atri, Nawada and Pakribarwan, the area traversed being 1,370 square miles comprised in 1,885 villages.

96. The theodolite stations which have been erected have been marked as follows:—Eighty-two by masonry pillars, 2,845 by prism stones, 1,378 by old cylinders, 17,803 by wooden pegs, 570 by local stones, and 392 by marks on rocks. The total number of stations was 23,070.

Connections have been made with 5 stations of the Great Trigonometrical Survey, and the angular work has been checked against 91 observations for azimuths. The old stations of the 1906-1908 survey of district Patna, those of the 1905-1907 survey of district Monghyr, and those of the 1910-11 survey of district Hazaribagh were used as common points.

As in the previous season, the area under traverse was interspersed with numerous villages of the Tikari, Deo, and other estates that had been previously surveyed and settled. The area of these villages has been excluded from the present traverse operations. The conversion of the values of the old stations, a large proportion of which were found, into terms of the present computation, and the plotting of these on the 16″ sheets entailed a considerable amount of extra work.

97. The area has been plotted on 2,499 sheets on the 16″-1 mile scale, 90 rough plots on the 4″ scale, and 41 reductions on the 2″ scale.

98. The computations have been completed in every respect, and all plots have been despatched to the Settlement Officer.

No demarcation of villages had been done beforehand; but the landlords and tenants generally gave assistance during the survey and no difficulties were experienced on this account.

District Palamau.

99. The traverse survey of district Palamau was commenced during the year. The programme consisted of the unsurveyed portions of thanas Balumath, Latehar and Mahuadand with an area of 1,206 square miles comprised in 589 villages.

100. The intersection of North Latitude 24° 00′ 00″ and East Longitude 84° 00′ 00″ was selected as the origin of survey for the district.

The number of theodolite stations erected was 25,061, of which 302 have been marked by old masonry pillars, 19,427 by local stones, 2,201 by marks on rocks, 3,126 by wooden pegs along disputed boundaries and 5 by cylinders.

Connections have been made with 12 stations of the Great Trigonometrical Survey, and the angular work has been checked against 160 observations for azimuths. The old stations of the 1905-1908 survey of district Ranchi, and of the 1911-12 survey of district Hazaribagh, and also those of the 1892-1896 survey of the Palamau Government estate have been used as common points.

The country traversed is mostly hilly and undulating, and considerable revision work was necessary.

101. With the exception of 18 villages, which will be revised early in the beginning of the ensuing field season, the computations are complete in every respect. The season's outturn which has been plotted on 1,453 sheets on the 16″ scale, 93 rough plots on the 4″ scale, and 30 sheets of 2″ reductions, have been made over to the Settlement Department.

102. No demarcation had been done prior to survey, but the landlords and tenants generally, with the exception of some zamindars of thana Balumath, who adopted a policy of passive resistance, rendered assistance at the time of line clearing, and not much difficulty was, therefore, experienced on this account.

In thanas Latehar and Mahuadand, the Protected Forest areas have, since their formation, been treated as outside the village or villages of which they originally formed a part and have been specially notified as blocks. These blocks in some cases include portions of as many as 12 villages, and the portions of the old village boundaries, which fall within them except where they follow the course of a river, are not easily identifiable. The Deputy Commissioner when asked to demarcate the boundaries of Khas Mahal villages stated that it would be difficult to do so in advance without professional assistance, and that the work would be costly, apart from the very considerable damage that would be done to the forest. He suggested that the question of demarcating the protected forests should be deferred till next season, when the matter could be fully considered by the Settlement Officer, and I agreed to the proposal.

103. *Defective Traversing.*—Several cases of defective traversing relating to the previous year's survey were reported by the Settlement Officers of Bihar and Chota Nagpur. They related mainly to the failure of the traversers to observe the rule that traverse lines should be run at distances not exceeding 2½ chains form the village boundaries, and to the lack of an adequate number of sub-traverses in numerous villages. These questions were fully discussed at a conference held at Hazaribagh in July, which some of the Settlement Officers attended, and instructions have been issued which, it is hoped, will obviate the recurrence of the defects. The failure of the traversers to run their lines along or near the boundary in all cases is evidently due to defective line cutting. The line-cutters are sent out to the field generally a month ahead of the main body; they are left to their own resources and are not supervised. It has been arranged that a Kanungo of the Settlement Department, whose services can usually be spared at this time of the year, should be sent out with the

line-cutters in future for a month or so, until the officers of the Traverse Department themselves take the field. He will be given explicit instructions and will be held responsible that they are carried out.

As regards the lack of sub-traverses, this must be considered to be due to defective supervision by the Traverse Assistants themselves. Their powers and duties have now been more closely defined, and they will in future be held responsible for defects of this character occurring in their circles.

CHAPTER III.

[*See* Appendices XIII and XIV.]

MISCELLANEOUS SURVEYS.

Santal Parganas.

Sauria Paharia Tract.

104. The programme in the Santal Parganas comprised the unsurveyed portions known as the Sauria Paharia Hills, situated in the Rajmahal and Godda Subdivisions of the district.

105. The order for survey was received late, and as it was arranged that the Cadastral Survey should commence immediately that the traverse was completed, the 16″ plots were supplied as soon as the villages were proved. On the suggestion of the Settlement Officer, the work was commenced from the north, near Sahebganj.

The area surveyed is very hilly and inhabited by Paharias who rendered no assistance, and who appeared to be averse to work of any kind and to the survey in particular. There was no previous demarcation and the Settlement Officer could give no reliable information as regards the number of villages to be surveyed. The traversers followed the boundaries previously surveyed along the outer periphery of the unsurveyed blocks. For the boundaries of villages inside the unsurveyed blocks, they had to rely on the information they received from the inhabitants. They experienced considerable difficulty in locating the old traverse stations of 1899-1901 on the outer periphery of the area, and this fact, coupled with the constant sickness amongst the staff, retarded the progress of the work to a very great extent. There was difficulty in getting a supply of good water and cholera broke out at the end of March. Several deaths occurred among the Settlement and Traverse staffs. The traverse-work was accordingly stopped, and the men withdrawn at the suggestion of the Settlement Officer.

106. The area completed was 50 square miles only, comprising 108 villages, which covered 120 sheets on the 16″ scale.

The number of traverse stations erected was 3,479, of which 1,920 have been marked by local stones, 1,239 by marks on rocks, 98 by wooden pegs, 10 by prism stones, and 95 by cylinders. There being no G. T. S. in the neighbourhood, the work was based on the values of old traverse stations. The angular work was checked by 13 observations for azimuths.

107. Mr. S. S. Day, the Subdivisional Magistrate, rendered every possible assistance.

108. The area remaining to be traversed is estimated to be 150 square miles in extent.

District Bhagalpur.

109. *Rampur Dahro and Majaura boundary dispute.*—At the instance of the Collector of Bhagalpur, the eastern boundaries of mauzas Majaura or Malpur Khagra and Rampur Dahro adjoining Chundaili Kurma Chak and Madhopur, and also the boundary between Majaura and Rampur Dahro were demarcated according to the Revenue Survey maps of 1847.

The work was connected with Puraini and Barhara, both tower stations of the Great Trigonometrical Survey.

The sites of 76 pillars were fixed along 3·5 miles of boundary relaid, and the Collector has been asked to arrange for the permanent marking of the boundary. As the parties concerned objected to the permanent marking of a portion of Majaura, belonging to Ram Krishen Singh, a co-sharer, who declined to bear his share of the cost of demarcation, this portion was left undemarcated, and has been shown with broken lines on the map prepared. There were 39 traverse stations and 18·45 miles of chaining. A copy of the 4″ tracing has been supplied to the Collector.

110. The cost of survey was met from deposits.

Nepal-Bhagalpur Boundary.

111. The programme of work along the Nepal-Bhagalpur boundary consisted of the marking of the positions of the missing boundary pillars, Nos. 14 and 15, between Nepal and the district of Bhagalpur, and the fixing of reference pillars in connection therewith. The sites of both boundary pillars have been fixed as also the sites of four reference pillars for each boundary pillar. As it was found impracticable to fix the reference pillars for boundary pillar No. 15 in British territory, they were fixed in Nepal, and the Subdivisional Officer of Supaul was requested to arrange with the Nepal Lieutenant of Hanuman Nagar for the building of the pillars. There were 18 traverse stations and 5·5 miles of chaining. A copy of the 4″ tracing has been sent to the Subdivisional Officer of Supaul, district Bhagalpur.

112. The cost was met from Provincial grants.

DISTRICT CHAMPARAN.

Bettiah Raj versus *Tamkuhi estate boundary dispute.*

113. The programme consisted of the relaying of the boundaries between villages Rajghat, Gobrahi, and Baijna, belonging to the Bettiah Raj, in District Champaran and village Pipra Bhagat belonging to the Tamkuhi Court of Wards estate in district Gorakhpur (United Provinces) according to the Diara Survey of 1864-65.

114. A considerable discrepancy was found to exist between the boundaries according to the Gorakhpur Survey of 1864-65, and those of a local Champaran survey of the same year, and the Board in their letter No. 2441, dated the 2nd August, 1912, decided that the boundary according to the former survey should be accepted and relaid.

The dispute had been in existence for about 50 years. In the year 1862, it was referred to the arbitration of the Maharaja of Bettiah, who laid down a boundary line which was accepted by the Settlement Officer, Mr. Lumsden, and was fixed in 1864-65 as the inter-provincial boundary. The dispute, however, does not appear to have been settled; in the year 1887, it was again adjudicated on by Mr. Cruickshank, the Settlement Officer of Gorakhpur, and Mr. Colvin, Settlement Officer of Champaran. Many of the pillars erected in 1887 appear to have been washed away by floods, and the Bettiah Raj asked for a fresh demarcation.

As the maps prepared by Messrs. Cruickshank and Colvin were not forthcoming, and it was essential that the work should start from and close on undisputed points, the traversing was commenced from Patjarwa and closed on Dannaha, both tower stations of the Great Trigonometrical Survey, and the boundaries were relaid *de novo* according to the 1864-65 survey of District Gorakhpur. The sites of 11 existing old pillars have been fixed by offsets, and shown in red on the 4″ map prepared. The sites of 28 new pillars along 2·8 miles of boundary relaid, have been fixed by offsets from the traverse lines, and marked with wooden posts which have been pointed out to the representatives of the two estates. The parties concerned will arrange for the permanent marking of the points fixed. There

were 38 traverse stations and 16·95 miles of chaining, and the angular work was checked by 3 azimuth observations. Copies of the 4″ tracing have been sent to the Collectors concerned.

115. The cost was met from deposits.

District Muzaffarpur.

Jafrabad Toke boundary dispute.

116. The demarcation according to the Diara Survey map of 1863-65 of the boundaries between Jafrabad Toke, a private estate, and Government diara villages and other private estates in pargana Azimabad, thana Hajipur in district Muzaffarpur, was undertaken at the request of the Collector. The work was connected with the existing old pillars of the Diara Survey of 1863-65 situated in villages Ismail Chak and Bazidpur *urf* Unchedih to the north of the disputed area. The sites of 72 pillars (50 marked with stones and 22 with wooden posts) along 5·5 miles of boundaries relaid, have been fixed by offsets from the traverse lines, and pointed out to the Sub-Deputy Collector of Hajipur, who was deputed for the purpose. The other parties concerned refused to sign the field books, as they lost considerably by the demarcation. A portion of the boundary to the extreme south of Jafrabad Toke falls in the bed of the river Ganges, and could not therefore be demarcated. This portion has been shown in broken lines on the 4″ map prepared, a copy of which has been forwarded to the Collector. There were 37 traverse stations and 12·25 miles of chaining.

117. The cost was met from deposits.

District Darbhanga.

Lorika-Bishunpur boundary dispute.

118. The demarcation of this disputed area was undertaken at the request of the Collector of Darbhanga. The dispute arose in consequence of the disappearance of the trijunction stone between villages Lorika, Bishunpur and Samda, in pargana Lauton.

119. The Amin, who first went to relay the boundary, fixed the trijunction at a certain point and demarcated the boundary accordingly. An appeal was lodged before the Commissioner with the result that another Amin was deputed to demarcate it. This officer located the trijunction at quite a different point, at a distance of about 2 chains from that fixed by the first Amin. An appeal was again preferred before the Commissioner, who ordered that the boundary should be accurately relaid. Both Amins appear to have been inefficient, and lacking in perseverance. The trijunction being the site of a traverse station of the Darbhanga Survey of 1893-94, there was not much difficulty in locating its position and the mark itself (a cylinder) was actually found buried under ground at the correct point.

The site has now been marked with a substantial wooden post and pointed out to the parties concerned, who might have been saved considerable expenditure had they asked that the matter be referred to the Survey Department in the first instance.

120. The cost was met from deposits.

District Patna.

Patna Municipality.

121. The traversing and detail survey on a scale of 1″=50 feet of the Patna Municipality, with a view to prepare an authoritative record of the width, etc., of all roads, lands and drains, were undertaken at the request of the Vice-Chairman of the Municipality. The maps of 1893, which are on the scale of 10″ = 1 mile, were used as guides.

122. *Traversing.*—The entire area was divided into six blocks, of which four comprising 270 sheets have been completed as well as portions of the remaining two blocks. Some of the stations of the 1907-08 survey were used as common points, and the angular work was checked by 9 observations for azimuths. There were 6,447 new traverse stations, which have been marked by 50 masonry pillars, 4 prism stones, 6,362 iron pegs, 16 wooden pegs, and 15 cylinders. The length of chaining was 157 miles.

123. *Detail Survey.*—Three Amins and an Inspector were employed on the detail survey and two blocks, comprising 161 sheets and a portion of block No. 3, comprising 41 sheets, have been finally completed.

124. The cost was met from deposits.

District Shahabad.

Disputed area in the Diaras of thana Shahpur.

125. The traversing of the disputed area in thana Shahpur, district Shahabad, was taken up at the request of the Settlement Officer, South Bihar. The area traversed was 82·66 acres; there were 35 traverse stations, including those on lines run to connect the work with the main traversing in the upland, and the total chaining was 9·1 miles. The 16″ plots of the area traversed and a 4″ rough plot showing the connections made were despatched to the Settlement Officer, who undertook the cadastral survey.

126. The cost was met from a deposit made in the Treasury through the Sub-Judge of Shahabad.

CHAPTER IV.

[*See* Appendices XIV to XVI.]

BIHAR AND ORISSA DRAWING OFFICE.

127. *Charge.*—Mr. L. F. Berkeley, who held charge of the office from October 1905, retired from the 27th August, 1913, making over charge to Mr. J. H. Murphy.

Mr. J. H. Johnson, Extra Assistant Superintendent, was in charge of the Imperial Standard Mapping Section during the absence on privilege leave of Mr. E. G. Hardinge, while Mr. A. W. Skempton, Supervisor of the Map Reproduction Section, acted as Supervisor in charge of the Provincial Drawing Section during the absence on privilege leave of Mr. H. W. Beer.

Imperial Standard Mapping Section.

128. The Standard Mapping Section is employed on the preparation of standard maps of 15 minutes of latitude by 15 minutes of longitude on the 2″ scale from the data supplied by recent Cadastral Surveys and other reliable sources. Thana maps for the district officers' use are also eventually compiled from the standard sheets.

The outturn of Standard Mapping during the year was as follows :—

(1) Twenty-nine standard maps covering an area of 5,879·40 square miles appertaining to the districts of Saran, Muzaffarpur, Darbhanga, Patna, Monghyr, Shahabad, Santal Parganas, Hazaribagh and Sambalpur of the Province of Bihar and Orissa, and to the district of Birbhum of the Province of Bengal, have been prepared and submitted for publication; 13 of these maps were prepared for revision purposes, *viz.*, those appertaining to the districts of Santal Parganas and Birbhum. In all these maps the village boundaries have been shown in black.

(2) Thirty-one standard maps covering an area of 5,336·72 square miles appertaining to the districts of Saran, Patna, Monghyr, Shahabad, Santal Parganas, Hazaribagh, Manbhum, Sambalpur, Ghazipur, Benares, Mirzapur, and Ballia have been completed.

(3) Fifty-eight standard maps covering an area of 9,247·36 square miles appertaining to the districts of Shahabad, Ranchi, Hazaribagh, Manbhum, Sambalpur, Midnapore, and Santal Parganas are under preparation.

(4) Ninety-three standard maps are in hand in different stages of compilation for the Map Publication Office of the Survey of India.

129. In addition to the above programme, the Standard Mapping Section prepared the following maps:—

(*i*) 20″, 40″ and 60″ maps of the Darjeeling Municipality.

(*ii*) 20″ maps of the Happy Valley Survey, Darjeeling, for the Public Works Department.

(*iii*) 30″ maps of Lebong and the Takdah Cantonment Survey, Darjeeling, for the Military Department.

130. *Summary of the progress of Standard Mapping*—Out of 83,895 square miles for which Standard maps are being prepared, the maps of the whole of North Bihar and of the three districts of Cuttack, Puri, and Balasore in Orissa have been published and are now available at the Map Record and Issue Office of the Survey of India. The table below shows the progress made in the other districts:—

Districts.	Area published or sent for publication (square miles).	Area completed but not published (square miles).	Remarks.
1	2	3	4
Angul (Sadar Subdivision) ...	884	...	
South Bhagalpur	1,800	...	
„ Monghyr	2,285	362	
Santal Parganas	5,148	433	
Patna	1,089	995	
Shahabad	600	3,760	
Hazaribagh	1,203	1,740	
Ranchi	2,815	2,286	
Singhbhum	2,708	...	
Sambalpur	1,286	929	
Manbhum	81	119	
Kharsawan State	154	...	
Saraikela „	224	...	

Provincial Drawing Section.

131. *District maps.*—The scheme for the preparation of District maps from the Standard sheets is progressing satisfactorily. A $\frac{1}{2}$″ District map is prepared from the prints of the standard sheets, as soon as they are received from the Map Publication Office, which receives the original Standard sheets, as soon as they are prepared by the Imperial Standard Mapping Section. The $\frac{1}{2}$″ maps are sent to the Map Publication Office, where they are photographed down to the $\frac{1}{4}$″ scale, *i.e.*, the scale for District maps, and published. These maps are very valuable for all purposes: they contain the latest materials embodied from the 16″ cadastral maps. The maps of the following districts are now ready: Champaran, Saran, Muzaffarpur, Darbhanga, Cuttack, Balasore, Puri, and Purnea; the District map of Bhagalpur is being sent for publication, and the maps of Monghyr and the Santal Parganas are under preparation.

132. *Thana maps.*—Thana maps on the 1″ scale are also being prepared for each district. The following is the process adopted: The portions of the standard map that coincide with a thana jurisdiction are cut out from the 1″ standard sheets and the various sections so made are joined together. There are on the average four such sections to every map. Each sectional map is reproduced on a zinc plate, and a combined map for the thana is finally reproduced from the plates. There are thus about four reproductions before a complete thana map can be obtained. Much difficulty has been experienced in fitting the sections together: there are gaps and overlaps that have to be eliminated, and the whole process of reproduction is very cumbrous. An experiment is being made at present in order to get rid of the cumbrous procedure: the various sections are being traced on to one sheet, and the latter reproduced. There are, however, obvious objections to this procedure, *viz.*, its cost, and the danger of serious errors introduced by tracing. A proposal to purchase a camera which could be utilized to photograph the maps direct from the sections when combined together on one sheet, and which would thus obviate the necessity of touching up the maps for Vandyke reproduction, is under consideration.

DETAILS OF THE PROGRAMME COMPLETED DURING THE YEAR.

133. (*i*) Districts Darbhanga, Purnea, Monghyr and Bhagalpur.—

The thana maps of the following thanas of these districts were completed and published: the maps of the whole of Purnea with the exception of three thanas; the maps of thana Darbhanga of Darbhanga district and of thanas Pratapganj, Bangaon, and Kishenganj in the district of Bhagalpur. The maps of thana Tegra of district Monghyr were completed, but not published.

(*ii*) Districts Cuttack, Puri and Balasore.—

The maps of the following thanas of these districts were completed: of thanas Cuttack, Dharamsala, Kendrapara, Jajpur, and Banki in Cuttack; of thanas Khurda, Pipli and Balugaon in Puri, and of thanas Dhamnagar, Bhadrak, Soro, and Basudebpur in Balasore. The thana maps of Banki in Cuttack were also published.

(*iii*) Santal Parganas.—

The Subdivisional thana maps of the Santal Parganas have been prepared by reduction by pentagraph, from original standard sheets: they give all topographical features, except hills which were not surveyed during the recent Cadastral survey. They are really preliminary editions of the Subdivisional maps: the final editions will be prepared from the standard maps published after the next revision survey. The Subdivisional maps of Dumka and Deoghar have been printed during the year; the maps of Jamtara were completed, but not printed.

134. *Preliminary thana map.*—The only preliminary thana maps now being compiled in the Bihar and Orissa Drawing Office are those of district Sambalpur. The maps of thanas Rampella, Bheran, Sohella, Barpali, Bijepur and Melchhamunda were completed and published. Thanas Attabira, Sambalpur, and Dhama were completed, but not published. The maps of thanas Ambabhona, Bhatli, and Bargarh, completed in 1910-11, were published, and the maps of thanas Sason, Katarbaga, Mundhir, Mura, Gaisilat, Leikera, Jharsogra, Padampur, Paikmal and Jagdalpur were prepared during the year, but not published.

135. *Trijunction mark maps.*—Some boundary mark maps of Pakur Subdivision in the Santal Parganas were completed and published; some maps appertaining to the Rajmahal, Godda, Dumka, Deoghar, and Jamtara Subdivisions are still pending; 2,256 copies of the Trijunction Mark maps of the districts of Shahabad, Gaya, Balasore, Cuttack, and Puri were printed and supplied to the Collectors and Settlement Officers.

136. *Special Ganges Diara Maps.*—There are altogether 83 diara sheets: of these 22 were completed of which 16 were published. Thirty-four sheets for the laying down of special reference pillars by the traverse party were also completed: 27 sheets are in hand for publication in various stages.

These maps are prepared on a scale of 4″=1 mile : They shew the village boundaries in black with trijunctions, village sites and all prominent objects, such as temples, mosques, churches, isolated trees, etc., of the recent Cadastral Survey, and the village boundaries of the Revenue Survey in red, the Diara Survey boundary in green, and the high bank of the Ganges of the recent Cadastral Survey in blue. They cover an area of approximately two miles on both sides of the Ganges.

137. The following table shows the progress made in the reproduction of village maps :—

District.	Season.	Number of sheets received.			Number of sheets reproduced.			Number of copies supplied.			Remarks.
		Previously.	During the year.	Total.	Previously.	During the year.	Total.	Previously.	During the year.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12
Shahabad ...	1908-09	603	1	604	590	14	604	59,460	1,580	61,040	
	1909-10	2,738	151	2,889	2,689	179	2,868	209,630	11,585	221,215	
	1910-11	1,295	1,278	2,573	240	2,332	2,572	14,400	112,565	126,965	
	1911-12	...	1,396	1,396	...	1,276	1,276	...	56,794	56,794	
Cuttack ...	1910-11	7,022	138	7,160	7,022	138	7,160	235,395	4,720	240,115	Whole district completed.
Puri ...	...	3,102	...	3,102	...	3,102	3,102	...	83,840	83,840	
Saran ...	...	...	706	706	...	706	706	...	7,060	7,060	
Purnea ...	...	...	127	127	...	127	127	...	838	838	
Monghyr ...	...	...	884	884	...	884	884	...	17,680	17,680	
Darbhanga ...	...	...	603	603	...	603	603	...	6,030	6,030	

138. *Reproduction of maps for attestation or for revision purposes.*—The table below shows the number of sheets and copies of maps reproduced for attestation and revision purposes :—

District.	Number of sheets.	Number of copies.	Remarks.
1	2	3	4
Shahabad	137	335	For attestation purposes.
Gaya	2,931	10,021	Ditto.
Shahabad	3,790	7,580	Blue prints for revisional purposes.
Cuttack	1,105	2,210	Ditto.
Puri	3,102	6,204	Ditto.
Champaran	2,909	5,818	Ditto.
Do.	775	775	Ditto.

The total number of copies of village maps of all kinds of the province of Bihar and Orissa supplied during the year was 3,57,641, which were printed from 16,594 plates, while the total number of such maps appertaining to the

ERRATUM.

Page 32.	*For—*	*Read—*
Paragraph 143, sub-paragraph 2, Line 5.	"rate"	"note"

APPENDICES.

which do not agree with those in last year's Report, are revised figures.]

province of Bengal reproduced in the Bihar and Orissa Drawing Office was 54,545, which were printed from 2,214 plates. The total for the two provinces combined was 4,12,186 copies printed from 18,808 plates.

139. *Costs.*—A statement showing the amount expended during the year is given in Appendix XIV. The total expenditure incurred was Rs. 1,19,719. Another statement showing the cost per copy of various kinds of maps, etc., is given in Appendix XVI.

140. *Miscellaneous.*—The detail figures showing the outturn of the different sections of the office are given in Appendix XV.

Some modifications were made in the system of accounts with effect from 1st September, 1913, in order to bring them into line with the accounts of the Settlement Department.

A preliminary copy of an Index map of the province of Bihar and Orissa on the scale of 32 inches to the mile has been prepared and forwarded to the Heads of Departments for favour of opinion. It is hoped that this map when published will serve as an index map that may be used by all Departments, and that the necessity of printing special maps to illustrate reports will be obviated.

Mr. Berkeley, before his retirement, compiled a valuable report on the work of the Drawing Office, of which he was in charge for 8 years. The report, which is being printed, will serve as a very useful guide for his successor and his Assistants.

CHAPTER V.

Charge and Tours of the Director and Notice of Officers.

141. *Charge.*—Colonel R. T. Crichton, C.I.E., I.A., was in charge of the Department up to the afternoon of the 21st March, 1913, when I took over charge from him.

142. *Tours.*—The total number of days spent on tour by Colonel Crichton and myself was 115 days,—86 days by Colonel Crichton and 29 days by myself. Colonel Crichton paid eight visits to Dinapore, four to Calcutta and one each to Ranchi and Darjeeling. After taking over charge of the Survey Department in March, I inspected the Hazaribagh Traverse Section twice and the Bihar and Orissa Drawing Office once. In the month of July, I held a conference at Hazaribagh of all officers employed on Traverse work to discuss various problems regarding the future conduct of traverse in the field and in recess.

Merits of Officers.

143. The greater part of the field season had been concluded before I took over charge of the Survey Department, and, as my predecessor, Colonel Crichton, did not put on record his opinions of the merits of the officers who worked under him, I can only refer to those officers whose work came prominently before myself during the year.

Mr. L. F. Berkeley, who was in charge of the Drawing Office until his retirement in August, 1913, conducted the work of the Drawing Office with conspicuous success, while Messrs. Calvert, Boyd and F. H. Alderson rendered considerable assistance in organizing and supervising traverse work. Babu Dharani Dhar, Head Computor of the Office, compiled a very valuable rate on the system of Traverse Surveys.

I have the honour to be,

SIR,

Your most obedient Servant,

JOHN REID,

Director of the Department of Land Records and Surveys,

Bihar and Orissa.

APPENDICES.

[*N.B.*—Figures in these Appendices, which do not agree with those in last year's Report, are revised figures.]

APPEN

General Progress of Survey and Settlement

Division and District.	Name of estate or tract under settlement.	Date of inception of operation.	Estimated area, in square miles under settlement.	Total number of villages.	Area cadastrally surveyed in square miles.			AREA IN		
								In which records were prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
Orissa.										*Government*
Puri	Khurda ...	1st Sep. 1911	883	[illegible],377	...	...	...	883	...	883
Patna.										II.—Other
										(a) Ori
Patna	Patna ...	1st Nov. 1906	1,[illegible]43	2,510	1,943	...	1,943	1,943	...	1,943
Gaya	Gaya ...	1st Oct. ...	3,880	...	...	1,109·53	1,109·53	...	1109·53	1,109·53
Shahabad ...	Shahabad ...	Nov. 1908	4,194	6,025	4,194	...	4,194	4,194	...	4,194
Bhagalpur.										
Monghyr ...	South Monghyr ...	Oct. 1908	2,287	2,018	2,287	...	2,287	2,287	...	2,287
Chota Nagpur.										
Hazaribagh ...	Hazaribagh ...									
Ranchi	Ranchi	Oct. 1909	6,906	7,009	5,193	1,713	6,906	5,193	1,713	6,906
Manbhum ...	Barahabhur[illegible] and Patkum.	1st March 1902	7,104	3,954	7,104	...	7,104	7,104	...	7,104
		1st Oct. 1908	934	859	934	...	934	934	...	934
Patna.										
										(b) Revi
Gaya	Previously Surveyed Estates.	1st Oct. 1912	781	983	...	295·14	295·14	...	295·14	295·14
Orissa.										
Cuttack	Cuttack ...	20th Jan. 1908	2,383·84	5,039	2,383·84	...	2,383·84	2,383·84	...	2,383·84
Balasore ...	Balasore ...	22nd Sep. 1906	1,701·65	3,599	1,701·65	...	1,701·65	1,701·65	...	1,701·65
Puri	Puri (including Khurda Ekrajat and Khandaiti.)	11th Oct. 1909 11th Sep. 1910 1st June 1910	1,111·13	2,119	1,111·13	...	1,111·13	1,111·13	...	1,111·13
										(c) Experimental
Cuttack	Cuttack ...	1st Dec. 1911 18th Nov. 1912	650·03	1,506	...	...	...	259·01	337·82	596·83
Balasore ...	Balasore ...	1st Nov. 1908 1st Nov. 1909 1st Nov. 1910 1st Nov. 1911 1st Nov. 1912	1,158·69	2,407	...	...	...	549·05	597·48	1,146·53
	Total ...	.....	35,917·34	34,405	26,851·62	3,117·67	29,969·29	28,542·68	4,052·97	32,595·65

DIX I.

during the year ending 30th September, 1913.

SQUARE MILES—													
In which attestation was completed—			In which draft publication was completed—			In which final publication was completed.			Cost of operations—			Total cost-rate in the operations shown as completed in the return.	
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
LAND REVENUE.													
Estates.									Rs.	Rs.	Rs.	Rs.	Rs.
...	883	883	...	883	883	...	139	139	18,504	33,831	52,335	...	...
SETTLEMENTS.													
ginal.													
1,043	...	1,943	1,943	...	1,943	1,943	...	1,943	5,01,959	7,488	5,09,447	...	...
...	...	...	...	...	...	...	...	...	1,972	1,70,386	1,72,358	...	...
3,388	806	4,194	3,388	806	4,194	1,742	2,312	4,054	11,07,909	1,63,763	12,71,672	...	...
2,285	2	2,287	2,285	2	2,287	2,285	2	2,287	4,19,575	800	4,20,375	...	...
3,312	1,875	5,187	3,312	1,875	5,187	1,506	1,808	3,312	9,47,254	3,51,104	12,98,358	...	...
7,104	..	7,104	7,104	...	7,104	7,104	...	7,104	11,29,596	1,055	11,30,651	289	225
934	...	934	934	...	934	934	...	934	2,51,142	6,375	2,57,517	...	...
sional.													
...	32·65	32·65	...	32·65	32·65	...	...	...	1,091	39,796	40,887	...	...
2,383·84	...	2,383·84	2,383·84	...	2,383·84	2,383·84	...	2,383·84					
1,701·65	...	1,701·65	1,701·65	...	1,701·65	1,701·65	...	1,701·65	14,43,986	30,967	14,74,953	223	215·80
1,111·13	...	1,111·13	1,111·13	...	1,111·13	1,111·13	...	1,111·13					
Maintenance.													
238·46	347·96	586·42	238·46	347·96	586·42	...	...	...					
526·98	559·90	1,086·88	526·98	559·90	1,086·88	...	...	...	1,73,012	67,508	2,40,520	...	...
24,928·06	4,503·51	29,434·57	24,928·06	4,506·51	29,434·57	20,710·62	4,259	24,969·62	59,96,000	8,73,073	68,69,073	...	...

APPENDIX II.

Return of Survey and Khanapuri Inspection and of Boundary and Internal Disputes for the year ending 30th September, 1913.

Name of area under Settlement.	Cadastral Survey.						Khanapuri.					Number of boundary disputes decided.	Number of internal disputes decided.
	Area in square miles surveyed during the year.	Personal partal in linear miles.			Independent partal in linear miles.	Total partal in linear miles.	Total number of plots khanapuried.	Number of plots tested.					
		By Assistant Settlement Officers.	By Kanungos and Head Inspectors.	By Inspectors.				By Assistant Settlement Officers.	By Kanungos and Head Inspectors.	By Inspectors.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
						(a)—*Original.*							
Gaya	1,109·53	283·19	699·45	2,046·07	1,390·28	4,418·99	1,324,211	12,500	35,101	163,079	211,280	454	39,671
Hazaribagh ...	1,713	121	291	1,874	1,245	3,531	712,660	7,031	15,102	67,118	109,251	645	8,804
						(b)—*Revisional.*							
Gaya	295·14	5·15	12·72	37·20	25·27	80·34	411,316	15,726	14,865	29,544	60,135	5	8,908
						(c) *Experimental Maintenance.*							
Cuttack ...	...	...	...	...	...	...	783,310	4,578	...	136,818	141,396	...	11,359
Balasore ...	...	...	...	...	...	...	826,050	5,311	...	125,314	130,625	...	9,333

APPENDIX III.

PART A.

Progress in settlement of rents under section 104, *Act VIII of* 1885, *in areas that were under settlement of Land Revenue during the year ending 30th September,* 1913.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents were proposed—			Number of villages for which settlement rent-roll was published in draft—			Objections under section 104 E.		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	Instituted—		
										To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Khurda Government Estate.	883	1,377	5,19,508	...	200,744	200,744	...	1,353	1,353	...	637	637
Shahabad ...	183·26	311	27,140	15,265	4,380	19,645	141	103	144	951	1,649	2,600

Estate or tract under settlement.	Objections under section 104 E.			Number of villages and tenancies for which a settlement rent-roll was confirmed.						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			To the end of the previous year.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent, + or —
1	14	15	16	17	18	19	20	21	22	23	24	25
										Rs.	Rs.	
Khurda Government Estate.	...	637	637	...	...	1,350	200,676	1,350	200,676	3,93,495	44,889	+12·3
Shahabad ...	734	1,865	2,599	59	4,848	150	12,520	209	17,368	2,44,536	273,996	+12·04

APPENDIX III.

PART B.

Progress in Settlement of Rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1913.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109 (c), Bengal Tenancy Act.				Number of section 105 cases which was instituted—			
								To the end of the previous year.		During the year.	
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12
				I.—Original.							
Patna	1,943	...	527,810	2,510	...	...	...	368	4,324	...	...
Shahabad ...	4,011	6,025	559,789	2,387	37,294	Not available.	35,985	5,586	50,441	1,366	8,462
Hazaribagh ...	3,312	3,425	111,286	...	...	...	...	530	9,815	1,838	21,237
Do. section 85 (2) (ii). C. N. T. Act.	...	...	...	...	...	...	...	...	...	230	...
Manbhum: Parganas Barahabhum and Patkum.											
Section 85 (2) (i), C. N. T. Act.	984	858	59,340	...	...	...	...	1,289	...	21	...
Section 85. (2) (ii), C. N. T. Act.								403	...	197	...
				II.—Revisional.							
Cuttack ...	2,383·84	5,039	1,289,318	...	...	...	...	8,294	8,515	...	...
Puri	1,111·13	2,119	458,373	...	...	...	...	2,190	2,190	2	2

Estate or tract under settlement.	Number of section 105 cases which was instituted.		Number of cases which was disposed of—						Of tenants in column 18.		
	Total.		To the end of the previous year.		During the year.		Total.		Former rental.	New rental.	Difference per cent. + or—.
	Number	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.			
	13	14	15	16	17	18	19	20	21	22	23
				I.—Original.					Rs.	Rs.	
Patna	368	4,324	363	4,175	5	149	368	4,324	2,375	2,607	+9·77
Shahabad ...	6,952	58,903	2,174	19,421	3,518	28,656	5,692	48,077	4,36,593	4,67,035	+6·96
Hazaribagh ...	2,368	31,052	38	38	202	3,415	240	3,453	9,247	11,741	26·97
Do. section 85 (2) (ii), C. N. T. Act.	230	...	...	...	8	17	8	17	169	168	—·60
Manbhum: Parganas Barahabhum and Patkum.											
Section 85 (2) (i), C. N. T. Act.	1,310	...	527	...	764	10,308	1,291	10,308	1,11,338	1,43,366	+28·76
Section 85 (2) (ii), C. N. T. Act.	603	...	14	...	586	6,183	600	6,183			
				II.—Revisional.							
Cuttack ...	8,294	8,515	8,293	8,514	1	1	8,294	8,515	...	...	Col. 17.—Application rejected.
Puri	2,192	2,192	2,086	2,086	106	106	2,192	2,192	130	199	+53

* The rentals (former) of 25 cases which were struck off before hearing have not been shown, as no calculations were made in regard to them.

APPENDIX III.

PART C.

Progress in disposal of Case-work other than settlement of fair rents during the year ending 30th September, 1913.

Name of estate or tract under settlement and nature of case.	Instituted to the end of the previous year.	Instituted during the year.	Total instituted.	Disposed of in previous years.	Disposed of during the year.	Total disposed of.	Balance pending.
1	2	3	4	5	6	7	8
			I.—LAND REVENUE SETTLEMENTS.				
Khurda.			*(a) Government Estates and Temporarily-settled Estates.*				
Section 103A ...	...	4,515	4,515	...	4,515	4,515	...
Shahabad.							
Section 103A ...	109,300	5,557	114,857	109,300	5,557	114,857	...
			II. OTHER SETTLEMENTS.				
Patna.			*(a) Original.*				
Section 40 ...	7,069	100	7,169	7,018	151	7,169	...
Do. 106 ...	414	...	414	404	10	414	...
Gaya.							
Boundary disputes ...	...	454	454	...	454	454*	...
Shahabad.							
Boundary disputes ...	...	13	13	...	13	13	...
Section 40 ...	1,724	1,658	3,382	63	1,490	1,553	1,829
Do. 106 ...	3,873	427	4,300	1,399	2,433	3,832	468
South Monghyr.							
Section 40 ...	11,720	26	11,746	11,401	46	11,447	299
Hazaribagh.							
Boundary disputes ...	1,707	645	2,352	1,707	645	2,352	...
Section 61, C.N.T. Act	417	244	661	407	145	552	109
Do. 83(1), ditto.	14,807	7,951	22,758	14,807	7,874	22,681	77
Do. 87, ditto.	165	196	361	12	156	168	193
Do. 111(6), ditto.	339	276	615	339	276	615	...
Do. 130, ditto.	15	37	52	1	14	15	37
Manbhum. Pdrganas Barahabhum and Patkum.							
Section 61, C. N. T. Act	30	1	31	30	1	31	...
Do. 87, ditto ...	99	1	100	81	19	100	...
Do. 130, ditto ...	72	...	72	67	5	72	...
Do. 252, ditto ...	38	...	38	31	7	38	...
Gaya.			*(b) Revisional.*				
Section 103A ...	...	286	286	...	286	286	...

* Five of these related to the areas under revision.

APPENDIX III.

PART C—*concld.*

Name of estate or tract under settlement and nature of case.	Instituted to the end of the previous year.	Instituted during the year.	Total instituted.	Disposed of in previous years.	Disposed of during the year.	Total disposed of.	Balance pending.
1	2	3	4	5	6	7	8
Cuttack.							
Boundary disputes ...	26	1	27	26	...	26	1
Section 40 ...	4,426	11	4,437	3,685	752	4,437	...
Do. 106 ...	6,976	...	6,976	6,963	8	6,976	...
Do. 108 ...	16	3	19	8	11	19	...
Do. 108A ...	3,822	317	4,139	3,187	952	4,139	...
Balasore.							
Section 108A ...	3,252	4	3,256	3,252	4	3,256	...
Puri.							
Section 40 ...	542	...	542	255	287	542	...
Do. 106 ...	2,713	6	2,719	2,595	124	2,719	...
Do. 108 ...	4	...	4	3	1	4	...
Do. 108A ...	843	496	1,339	451	888	1,339	...
Do. 109.C. ...	11	...	11	...	11	11	...

APPENDIX III.

PART D.

Progress in settlement of Land Revenue during the year ending 30th September, 1913.

Name of estate or tract under settlement.	Total area.	Total existing assets.	Total new assets.	New Land Revenue settled during the year.				Total cost and cost rate.		
				Area.	Existing Land Revenue.	New Land Revenue.	Percentage of difference, + or —.	Total costs incurred on area in column 5.	Cost rate per square mile according to sanctioned estimate.	Actual cost rate per square mile, column 9 ÷ 5.
1	2	3	4	5	6	7	8	9	10	11
	Sq. M.	Rs.	Rs.	Sq. M.	Rs.	Rs.		Rs.	Rs.	Rs.
Shahabad district.	183·26	...	...	...	...	...	...	...	...	...

NOTE.—The total cost incurred was Rs. 12,686-7-9. Figures for columns 3 to 11 are not available.

APPENDIX III.

PART E.

Results of Appeals during the year ending 30th September, 1913.

Name of estate or tract under settlement.	Nature of case.	Pending from previous year.	Instituted during the year.	Disposed of during the year.	Balance pending.	Results of appeals (column 5).			
						Decisions—			Cases returned for retrial.
						Upheld.	Modified.	Reversed.	
1	2	3	4	5	6	7	8	9	10
I.—Original.									
Patna District ...	Section 40, B. T. Act	5	27	31	1	24	5	...	2
	Do. 105, ditto ...	1	3	4	...	2	2	...	...
	Do. 106, ditto ...	7	12	15	4	13	2	...	...
	Do. 108, ditto ...	...	1	1	...	1	...	...	...
Gaya District	Boundary disputes ...	...	144	131	13	106	25	...	...
Shahabad District ...	Boundary disputes ...	...	3	2	1	1	1	...	...
	Section 40, B. T. Act	...	42	7	35	7	...	...	...
	Do. 104G, ditto ...	1	8	9	...	7	2	...	...
	Do. 105, ditto ...	21	936	293	664	142	125	14	12
	Do. 106, ditto ...	8	675	127	556	85	21	19	2
	Do. 108, ditto ...	1	...	...	1	...	...	...	...
South Monghyr ...	Section 40, B. T. Act	...	2	1	1	1	...	...	...
Hazaribagh	Boundary disputes ...	13	132	138	7	115	3	10	10
	Section 61, C. N.T. Act	20	31	36	15	14	13	...	9
	Do. 85, ditto ...	...	21	9	12	1	...	2	6
	(a) Do. 85, ditto ...	...	1	1	...	...	...	1	...
	Do. 87, ditto ...	...	10	9	1	3	...	4	2
	(b) Do. 87, ditto ...	...	3	...	3	...	...	...	...
	(a) Do. 130, ditto ...	...	1	...	1	...	...	...	...
Ranchi	Section 85, C.N.T. Act	4	...	4	...	3	1	...	...
	Do. 87, ditto ...	14	...	14	...	12	2	...	...
	Do. 252, ditto ...	5	...	5	...	5	...	...	...
Manbhum : Barahabhum and Patkum.	Section 85, C N.T. Act	1	26	21	6	11	4	5	1
	(b) Do. 87, ditto ...	3	12	12	3	9	...	3	...
	(a) Do. 130, ditto ...	...	5	5	...	4	...	...	1
	(a) Do. 252, ditto ...	...	10	10	...	4	...	6	...
II.—Revisional.									
Gaya District	Boundary disputes ...	...	2	...	2	...	...	...	...
Cuttack	Section 105, B. T. Act	17	19	17	19	14	...	1	...†
	Do. 106, ditto ...	91	14	99	6	63	4	20	3†
	Do. 108 A, ditto...	...	5	5	...	5	...	...	...
Balasore	Section 106, B. T. Act	2	...	...	...	...	1	...	...
Puri	Section 106, ditto ...	23	37	34	26	17	...	10	1†

(a) Divisional Commissioner's Court.
(b) Judicial Commissioner's Court.
* Out of 106 appeals upheld, 8 were remanded for re-enquiry at attestation.
† Others withdrawn or compromised.

APPENDIX IV.

Statement showing the nature and number of holdings recorded in each settlement during the year ending 30th September, 1913.

Name of estate or tract under settlement.	Number of khatians recorded in the name of—												
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under raiyats.
	As private lands.	Not as private lands.						Service tenure.	Others.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					I.—Original.								
Khurda Government Estate.	...	663	6,544	...	171,692	320	1,135	8,868	11,082	3,681	611	205,216	14,292
Shahabad (thanas Dehri and Sasaram).	1	3,447	1,494	180	65,281	9	814	1,501	1,905	6,824	685	82,141	1,377*
South Monghyr ...	...	1	1	...	247	...	16	...	...	2	...	267	8†
					II.—Revisional.								
Gaya	...	9	66	22	3,004	...	39	57	166	177	16	3,556	91‡
					Experimental Maintenance.								
Cuttack ...	25	176	222	712	3,240	118	63	10	57	218	16	4,857	279
Balasore ...	...	37	115	201	1,067	52	153	...	13	23	...	1,661	53

* Excluding Fard
ab-pashi—106
Fard Riwaj Bhaoli—496
Chaukidari chakran—54
Nadi Sone—16
Fard Riwaj Jungle—6

† Excluding Fard Riwaj Bhaoli—1

‡ Excluding Fard
ab-pashi—36
Fard Riwaj Bhaoli—40

APPENDIX V.

Showing the progress made in Recovery of Costs during the year ending 30th September, 1913.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.							Balance.		
						Landlords' share.			Occupiers' share.						
			Landlords' share.	Occupiers' share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.	Grand Total collected.	Landlords' share.	Occupiers' share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Patna ...	Patna district operations.	...	17	17	...	...	...	...	17	17	17	...	...	...
Do. ...	Shahabad	Shahabad operations.	3,68,005	2,32,564	6,00,569	2,73,706	10,480	2,87,246	2,31,553	917	2,32,470	5,19,716	80,759	94	80,853
Chota Nagpur	Ranchi ...	Ranchi ...	27,661	15	27,676	25,093	2,568	27,661	...	15	15	27,676	...	...	...
Ditto ...	Manbhum	Parganas Barabhum and Patkum.	49,515	103	49,618	34,556	6,104	40,660	...	103	103	40,763	8,855	...	8,855

APPENDIX VI.

PART A.

Statement of sales of Proprietary Rights during the past ten years the statistics of which were collected during attestation in the year ending 30*th September,* 1913.

Name of estate or tract under settlement.	Area under attestation during the year.	Area of villages in which statistics were collected.	Number of estates in the selected villages.	Sales of estates or portions of estates.			Whether the purchaser belongs to the class of—			
				Number of sales.	Land revenue transferred.	Price paid.	Landlord.	Raiyat.	Mahajan.	Lawyer.
1	2	3	4	5	6	7	8	9	10	11
	Sq. M.	Sq. M.			Rs.	Rs.				
Shahabad (thanas Dehri and Sasaram).	806	806	1,635	250	3,333	2,39,963	165	77	8	...
			Experimental Maintenance.							
Cuttack	347·96	10·96	636	95	7,211	6,24,369	60	22	13	...
Balasore	559·37	28·38	225	53	4,365	88,176	37	6	10	...

APPENDIX VI.

PART B.

Statement of mortgages during the past ten years the statistics of which were collected during attestation in the year ending 30th September, 1913.

Name of estate or tract under settlement.	Area under attestation during the year in acres.	Number of holdings attested.	Area, in acres, held by mortgagees—						Profession of mortgagee.							
			From proprietors.	From tenure-holders and under-tenure-holders.	From raiyats at fixed rates.	From settled raiyats.	From occupancy raiyats.	From non-occupancy raiyats.	Landlord.		Raiyat.		Mahajan.		Lawyer.	
									Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
						Original.										
Shahabad (thanas Dehri and Sasaram).	515,768	82,819	5,028	273·11	14·29	2,919·26	...	·92	229	4,421·87	2,069	2,905·21	325	613·02	19	295·48
						Revisional.										
Gaya	20,896	3,632	...	...	...	745·31	...	...	...	...	338	741·34	3	3·97	...	...
						Experimental Maintenance.										
Cuttack ...	222,094	214,212	...	1·68	8·41	121·80	1·17	...	1	4·71	140	86·52	48	41·83	...	...
Balasore ...	3,58,336	214,928	8·10	6·32	22·47	246·73	2·50	0·79	14	14·45	172	170·07	92	99·89	2	2·50

APPENDIX VI.

PART C.

Statement of transfers of Occupancy Rights during the past ten years the statistics of which were collected during attestation in the year ending 30th September, 1913.

Name of district and settlement.	Area under attestation during the year in square miles.	Number of raiyati holdings attested.	Area of raiyati holdings attested, in acres.	Number and area of holdings transferred.				Profession of transferee.								Number of raiyats who still occupy their lands—		Price per acre of area transferred.	
				Entire holdings.		Part holdings.		Landlord.		Raiyat.		Mahajan		Lawyer.		On cash rents.	On produce rents.	Whole holding.	Part of holding.
				Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area in acres.	Number.	Area. in acres.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
								Original.										Rs. a.	Rs. a.
Khurda Government Estate.	883	219,508	204,168	1,801	1,350	4,367	2,441	255	148	5,107	2,944	792	680	14	19	158	89	339	257
Shahabad (thanas Dehri and Sasaram).	806	66,284	162,259·44	93	250	152	259	23	36	186	403	36	70	...	...	...	...	48	140
								Revisional.											
Gaya ...	32·65	3,065	1,4767·39	45	122·68	100	149·20	...	...	140	268·89	5	2·99	...	...	...	...	12·5	24·13
								Experimental Maintenance.											
Cuttack ...	347·96	75,860	101,708·09	1,502	954·98	5,212	2,379·82	256	198·92	5,952	2,780·78	522	345·46	14	9·64	...	...	102·13	129·11
Balasore ...	589·37	97,924	2,21,154·00	794	707·53	2,363	1,751·48	131	140·99	2,403	1,750·13	621	561·15	2	3·74	...	...	101	114·9

APPENDIX VII.

(*See* Chapter IV, Part I, of the Report.)

Showing Mutations in Tenants' Rights for the year ending 30th September, 1913.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
																Rs.
Patna Division.																
Patna	40 Estates ...	50,963·19	7,136	43	18	597	...	21	2	1	...	662	20	9·56	2,909·14	15 to 360
Gaya	28 ,, ...	55,407·36	5,232	56	71	87	3	2	5	1	4	146	83	4·37	853·58	4 to 110
Shahabad ...	12 ,, ...	11,214·	1,352	9	22	81	1	...	3	1	1	91	27	8·73	329	68
Tirhut Division.																
Saran	Makhdumganj ...	222·65	120	...	...	4	...	...	1	...	...	4	1	4·16	7·77	...
Do.	Mudha ...	360·11	235	3	...	3	...	...	2	1	1	7	3	4·30	9·81	460
Do.	Ramdaschak ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Deopura ...	22·59	41	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Kaithwalia ...	12·02	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Bangra ...	1,089·22	215	...	...	...	...	...	...	...	...	...	...	...	...	...
Darbhanga ...	Bukhtiarpur ...	1,110·55	493	...	1	3	1	...	...	...	...	3	2	1·01	16·45	27
Ditto	Hardaspur ...	309·60	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhagalpur Division.																
Monghyr ...	Diara and other Estates.	64,024·	13,010	51	57	44	12	8	5	2	...	105	74	1·37	1,305·89	10 to 300
Bhagalpur	Diara Estates ...	23,557·82	1,407	...	...	2	...	...	...	...	...	2	...	·14	2·81	...
Ditto	Sadar Khasmahal ...	219·46	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto	Railway B class land	238.86	92	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto	Supaul	4,217·22	323	3	...	1	...	1	...	...	...	5	...	1·54	72·48	12
Ditto	Madhipura ...	3,240·45	603	12	...	28	...	...	...	...	...	40	...	6·64	24·	25
Purnea	Belwa Harinkhori ...	6,079·36	1,146	8	1	28	...	...	...	1	1	37	2	3·40	131·45	14
Ditto	Bagmara ...	1,834·26	104	3	...	...	...	...	...	...	...	3	...	2·88	97·26	9
Santal Parganas ...	12 Estates ...	2,688·82	4,402	93	153	246	...	3	...	...	...	342	153	11·24	390·66	30 to 974
Orissa Division.																
Cuttack	Banki	75,030·45	35,479	205	998	700	1,302	129	389	12	3	1,106	2,692	10·7	577·99	139
Ditto	Town Khas Mahal...	793	1,911	53	4	30	...	6	1	3	2	92	7	5·18	37·56	2,000
Ditto	Cantonment Khas Mahal.	507	521	19	8	6	...	1	...	...	...	26	8	6.	2·61	6,525
Balasore	Nayanand Birso ...	17,987·	11,572	123	236	16	4	1	3	5	2	145	245	3·37	292·	85
Ditto	Chandbali ...	178	130	...	...	...	...	...	...	...	...	...	...	...	...	...
Ditto	Bhadrack Salt Gola	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Angul	Angul ...	,577,376·	32,181	4	94	651	1,240	68	22	1	25	724	1,381	6·5	150·77	36
Puri	Khurda ...	565,353·	219,508	2,850	5,596	116,206	20,513	408	732	386	281	19,850	27,122	21·	5,061·	298
Do.	Kodhar ...	5,276·52	787	...	7	...	1	...	...	...	...	...	8	1·01	...	...
Do.	Balukhand ...	573·67	310	3	...	1	...	2	1	...	...	6	1	2·2	5·50	5,000
Sambalpur ...	Malguzari ...	130,909·98	6,437	38	67	160	20	11	48	9	...	218	135	5·5	2,749·28	29
Ditto	Thikadari (Goantiahi).	864,792·36	37,948	171	719	993	85	17	170	43	25	1,227	999	6·	17,143·84	28
Ditto	Raiyatwari ...	8,137·90	246	...	...	12	...	...	...	...	...	12	...	5·	290·66	...
Ditto	Zamindari ...	922,279·92	24,813	199	434	581	28	7	83	12	4	799	549	5·5	15,388·16	14
Chota Nagpur Division.																
Hazaribagh ...	Koderma ...	36,460·	3,128	10	...	30	20	...	...	...	...	40	20	1·92	153·02	20
Ranchi	Barkagarh ...	67,394·62	6,179	...	...	110	...	...	...	...	...	110	...	1·76	...	...
Palamau	Palamau and Baldehri.	272,239·33	17,257	14	7	650	674	9	45	1	2	674	728	8·12	7,015·15	15-12
	Total ...	3,772,110·29	434,353	3,970	8,493	21,333	23,904	694	1,512	479	351	26,476	34,260	1·398	55,017·84	...

APPENDIX VII—*concluded.*

WARDS' ESTATE.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Gaya	Maksudpur ...	76,618·	5,922	44	48	401	22	6	29	1	3	452	102	9·3	2,379	24
Do.	Deo Raja's and Deo Rani's Estates.	61,264·26	9,207	9	2	1	...	2	...	1	...	13	2	0·16	99·64	20
Shahabad	Surjapur ...	11,420·	3,192	3	74	...	...	...	...	...	...	3	74	2·41	170·	145
Tirhut Division.																
Saran	Chautaria ...	5,516·	2,411	4	8	3	2	...	1	...	1	7	12	0·7	21·8	200
Do.	Khojwa ...	12,833·	4,604	3	...	...	...	...	2	...	...	3	2	0·1	7·8	100
Do.	Mashrakh ...	8,799·	5,321	6	3	...	...	...	1	1	1	7	5	0·2	12·	144
Muzaffarpur, Champaran and Saran.	Bettiah ...	1,375,638·20	229,949	165	29	677	1	5	2	7	...	854	32	0·38	1,382·44	110
Muzaffarpur ...	Mahtha	15,395·24	5,137	10	40	30	3	3	7	...	...	42	50	1·79	81·34	116
Do.	Tamkuhi ...	7,488·88	3,311	22	99	87	...	...	7	...	...	109	106	6·4	216·	100
Do.	Sursand, No. I ...	14,585·56	6,572	15	155	419	...	...	3	...	2	434	160	9·03	1,219·30	132
Do.	Do., No. II ...	6,045·54	3,026	6	60	131	2	...	17	...	...	137	79	7·13	367·80	168
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	73,548·01	23,520	124	162	133	...	...	20	2	...	259	182	1·8	827·5	91
Bhagalpur Division.																
Monghyr	Bahadurpur ...	51,684·	9,713	53	196	7	11	1	10	...	...	60	217	2·85	62·6	33
Do.	Shakerpura ...	9,728	2,630	18	39	5	2	...	5	...	...	23	46	2·62	153.	27
Do.	Ratan	5,184	4,197	18	30	3	4	1	2	...	...	22	36	1·38	208·	21
Do.	Chapraon ...	14,976	4,989	18	78	2	1	...	...	...	...	20	79	2·	172·	40
Bhagalpur	Sonbarsa ...	63,044·12	16,493	182	...	38	...	...	...	...	...	220	...	1·3	910·19	19
Do.	Panjwara ...	21,346	2,241	8	10	19	...	...	3	...	...	27	13	1·7	273·48	20
Do.	Sukhpur ...	18,357·86	4,020	9	3	...	19	...	...	...	...	9	22	·77	35·19	30
Do.	Lugma ...	7,350·	1,870	12	43	48	...	2	52	...	...	62	95	8·3	130·	50
Do.	Shahpur ...	7,069·	1,462	9	32	51	...	...	25	...	...	60	57	8	159·	50
Do.	Barari ...	53,398·	25,411	57	10	7	6	...	...	...	...	64	16	·31	206·	26
Santal Parganas ...	Sankara ...	51,712	151	...	...	8	1	...	...	...	...	8	1	5·96	3,824·92	...
Do.	Punasi ...	21,542	250	4	...	...	1	...	...	...	...	4	1	2·	816·	...
Do.	Garsara ...	10,872·	202	...	...	4	...	...	...	...	...	4	...	1·98	916·	...
Do.	Pakaur ...	15,911·	12,158	134	115	...	...	1	...	1	3	136	118	2·08	228·	56
Orissa Division.																
Cuttack	Dompara ...	53,469·46	8,626	16	125	346	202	5	...	...	...	367	327	8·	82·93	94
Do.	Darpan ...	68,727·	26,023	223	701	176	...	4	...	2	...	408	701	4·25	958·	60
Puri	Parikud ...	42,934·	6,258	98	185	93	1	...	1	...	...	194	187	6·08	119·49	23·8
Chota Nagpur Division.																
Ranchi	Armai ...	265,258·	3,235	...	...	66	...	...	...	...	...	66	...	2·	...	...
Do.	Biru	626,094·	2,172	...	...	50	...	...	...	...	...	50	...	2·3	...	...
Do.	Toto	12,074·	786	...	...	11	...	...	...	...	...	11	...	1·4	...	...
Do.	Kulmunda ...	20,652·	298	...	...	11	...	...	...	...	...	11	...	3·7	...	...
Do.	Masmano ...	17,574·	715	...	...	17	...	...	...	...	...	17	...	2·4	...	...
Do.	Bajpur ...	8,111·	438	...	...	5	...	...	...	...	...	5	...	1·1	...	...
Do.	Jeria	335,738·	2,910	...	...	20	...	...	...	...	...	20	...	·7	...	...
Do.	Parba	34,929·	170	...	...	4	...	...	...	...	...	4	...	2·3	...	...
Do.	Barkabeura ...	18,592·	212	...	...	10	...	...	...	...	...	10	...	4·7	...	...
Do.	Jamdag ...	6,654·	324	...	...	9	...	...	...	...	...	9	...	2·7	...	...
Do.	Oreydaru ...	7,272·	187	...	...	6	...	...	...	...	...	6	...	3·2	...	...
Do.	Sarjamdih ...	3,986·	752	...	...	8	...	...	...	...	...	8	...	1·1	...	...
Do.	Janampirhi ...	6,497·	262	...	...	3	...	...	...	...	...	3	...	1·1	...	...
Do.	Loro	7,023·	264	...	...	3	...	...	...	...	...	3	...	1·1	...	...
Do.	Siri	49,749·	722	...	...	4	...	...	...	...	...	4	...	·6	...	...
Do.	Tamar	331,220·	1,057	...	...	7	...	...	...	...	...	7	...	·7	...	...
	Total ...	3,937,879·13	443,403	1,272	2,247	2,923	278	30	187	15	10	4,243	2,722	1·57	16,066·99	...

APPENDIX VIII.

[*See* Chapter IV, Part I, of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1913.

GOVERNMENT ESTATES.

Division and District.	Estate.	Vacant Tenancies for resettlement during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
Patna Division.					
Patna ...	Government Estates	208	278·56	208	278·56
Gaya ...	Ditto ...	120	288·16	119	287·98
Tirhut Division.					
Darbhanga ...	Bukhtiarpur ...	1	0·11	1	0·11
Bhagalpur Division.					
Monghyr ...	Diara and other Estates.	12	123·76	36	124·82
Bhagalpur ...	Railway B class land.	1	6·31	1	6·31
Ditto ...	Madhipura ...	20	138·	...	...
Santal Parganas ...	Sahibgunj Tauzi No. 599. ...	2	·13	2	·13
Orissa Division.					
Cuttack ...	Banki ...	44	14·87	44	14·87
Balasore ...	Nayanand Birso...	1	·97	...	...
Angul ...	Angul ...	74	344·76	31	133·95
Puri ...	Balukhand ...	22	18·27	·6	1·76
Sambalpur ...	Malguzari ...	1	3·37	...	...
Ditto ...	Thikadari ...	7	19·60	2	36·16
Ditto ...	(Goantiahi)				
Ditto ...	Zamindari ...	17	122·27	...	...
Chota Nagpur Division.					
Hazaribagh ...	Kharagdiha ...	...	...	1	11
Ditto ...	Koderma ...	10	15·05	9	9·77
Ranchi ...	Barkagarh ...	...	...	16	8·18
Ditto	Patia ...	...	...	1	4·96
Palamau ...	Palamau and Baldehri.	334	1,081·58	217	799·36
	Total ...	874	2455·77	694	1717·92

APPENDIX VIII—(*concluded.*)

Wards' Estates.

Division and District.	Estate.	Vacant Tenancies for resettlement during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
Patna Division.					
Gaya ...	Maksudpur ...	187	596·	167	461·
Do. ...	Deo Raja's and Rani's Estates.	20	80·15	6	20·60
Tirhut Division.					
Saran ...	Chautaria ...	10	7·4	6	6
Do. ...	Khojwa ...	18	16·8	3	0·9
Do. ...	Mashrakh ...	5	4·3	2	3·3
Do. ...	Manghauli ...	15	22·2	8	15·9
Muzaffarpur, Champaran and Saran.	Bettiah ...	149	201·55	149	201·55
Patna, Darbhanga Muzaffarpur and Monghyr.	Narhan ...	184	192·78	30	30·95
Muzaffarpur ...	Mahtha ...	66	67·25	...	...
	Tamkohi ...	56	145	23	62·
	Sarsund, No. I. ...	60	102·11	33	69·93
	Do. No. II. ...	15	12·56	6	5·33
Bhagalpur Division.					
Monghyr ...	Bahadurpur ...	562	2293·9	298	567
Ditto ...	Shakerpura ...	84	437·	44	101
Ditto ...	Ratan ...	76	206·	54	153
Ditto ...	Chapraon ...	142	936·81	55	114
Bhagalpur ...	Sonbarsa ...	312	683·92	132	583·02
Ditto ...	Panjwara ...	66	624·03	49	146·49
Ditto ...	Sukhpur ...	130	277·70	10	55·97
Ditto ...	Lugma ...	14	34·	8	14·
Ditto ...	Shahpur ...	7	18·	1	3·
Ditto ...	Barari ...	89	396·	8	9·
Santal Parganas ...	Pakour ...	297	164·6	28	37·8
Orissa Division.					
Cuttack ...	Dompara ...	9	3·92	9	3·92
	Darpan ...	61	95·31	12	15·33
Puri ...	Parikud ...	6	7·77	9	18·68
Chota Nagpur Division.					
Ranchi ...	Biru ...	1	11·75	...	...
	Parba ...	1	1·1	...	...
	Total ...	2342	7637·06	1150	2697·06

APPENDIX IX.

[*See* Chapter IV, Part I, of the Report.]

Showing New Settlements of Waste Lands during the year ending 30th September, 1913.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates...	604	1,508·47	Settlement rates.
Gaya ...	Ditto ...	168	537·51	
Shahabad ...	Ditto ...	6	0·51	Settlement rates.
Tirhut Division				
Darbhanga ...	Bukhtiarpur ...	1	0·05	Otherwise
Bhagalpur Division				
Monghyr ...	Diara and other Estates.	522	2,249·16	Otherwise.
Bhagalpur ...	Madhipura ...	1	5·19	Settlement rates.
Purnea ...	Belwa Harinkhori ...	41	58·87	Otherwise.
Santal Pargnas.	Nayabazar ...	3	14	Settlement rates.
	Railway B class ...	2	3·00	
	Hiran bazar ...	5	·33	
Orissa Division.				
Cuttack ...	Banki ...	172	56·38	Settlement rates.
Angul ...	Angul ...	388	628·27	Do.
Puri ...	Balukhand ...	6	1·71	Otherwise.
Sambalpur ...	Malguzari ...	47	132·40	Otherwise.
	Thikadari (gauntiahi).	247	278·60	
	Zamindari ...	383	753·85	
Chota Nagpur Division.				
Hazaribagh ...	Kharagdiha ...	3	5·97	Settlement rates.
Ditto ...	Koderma ...	193	600	Otherwise.
Ranchi ...	Barkagarh ...	42	14·67	Village rates.
Palamau ...	Palamau and Baldehri.	84	111·01	Settlement rates.
	Total ...	2,918	6960·01	

APPENDIX IX—*concluded.*

WARDS' ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Gaya ...	Maksudpur ...	555	521	
Do. ...	Deo Raja's and Deo Rani's Estates ...	3	2·80	Prevailing rates of the adjoining lands.
Tirhut Division.				
Saran ...	Chautaria ...	1	0·01	Otherwise.
	Mushrakh ...	2	0·15	
	Manjhauli	1	0·04	
Muzaffarpur, Saran and Champaran.	Bettiah ...	197	424·20	Prevailing rates of the adjoining lands.
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	56	18·13	Otherwise.
Muzaffarpur ...	Mahtha ...	1	3·00	Otherwise.
	Tamkohi ...	1	1·00	
	Sursand No. I ...	37	23·78	
	Ditto No. II ...	4	42·75	
Bhagalpur Division.				
Monghyr ...	Bahadurpur ...	53	84.00	Otherwise.
	Shakarpura ...	1	9.00	
	Ratan ...	5	45.00	
	Chapraon ...	1	·12	
Bhagalpur ...	Sonbarsa ...	385	674·20	
	Panjwara ...	31	174·01	
	Lugma ...	11	4.00	
	Shahpur ...	2	1.00	
	Barari ...	18	14.00	Prevailing rates of the adjoining lands.
Santal Paragnas	Sankara ...	5	·009	Settlement rates.
	Garsara ...	7	·03	
	Pakour ...	44	67.00	
Orissa Division.				
Cuttack ...	Darpan ...	35	25·15	Village rates.
Puri ...	Parikud ...	5	2·29	
Chota Nagpur Division.				
Ranchi ...	Barkibeura ...	1	3·00	
	Jonha ...	3	5·50	
	Loahatu ...	4	2·55	
	Mardhan ...	2	2·26	
	Siri ...	3	2·00	
	Jeria ...	1	1·09	
	Armai ...	1	2·00	
	Total ...	1,476	2154·49	

APPENDIX X.

[*See* Chapter IV, Part I, of the Report.]

Showing the results of the inspection of rent-rolls for the year ending 30th September, 1913.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Check by Tahsildars and other subordinate agency.				Check by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government estates ...	150	7,136	79	6,441	90·2	581	76	4,977	69·7	96
Gaya	Ditto	100	5,327	100	4,811	90·31	88	81	3,733	70·07	136
Shahabad ...	Ditto	15	1,456	...	...	...	...	15	1,400	96·	33
Tirhut Division.											
Saran	Makhdumganj ...	3	120	3	120	100·	...	3	120	100·	...
Do.	Mudha	2	235	2	235	100·	...	2	235	100·	...
Do.	Ramdaschak ...	2	4	2	4	100·	...	2	4	100·	...
Do.	Deopura	1	41	1	41	100·	...	...	...	...	...
Do.	Kaithwalia ...	1	8	1	8	100·	...	...	...	...	...
Do.	Bangra	8	215	...	...	...	...	...	...	...	...
Darbhanga ...	Bukhtiarpur ...	3	493	3	493	100·	...	3	493	100·	...
Do. ...	Hardaspur ...	1	1	1	1	100·	...	1	1	100·	...
Bhagalpur Division.											
Monghyr ...	Diara and other estates.	91	13,010	69	6,579	50·56	173	37	867	6·66	66
Bhagalpur ...	Diara Estates ...	6	1,407	6	1,407	100·	101	6	1,407	100·	82
Ditto ...	Sadar Khas Mahal ...	7	25	7	25	100·	1	7	25	100·	1
Ditto ...	Supaul	19	3·3	19	323	100·	...	12	269	83·29	...
Ditto ...	Madhipura ...	14	603	14	603	100·	40	14	603	100·	40
Ditto ...	Railway B class land	21	92	21	92	100·	15	21	92	100·	15
Purnea ...	Belwa Harinkhori ...	6	1,146	3	740	64·57	47	3	87	7·58	...
Do. ...	Bagmara	9	104	9	104	100·	7	9	70	67·30	5
Do. ...	Lawkahee	1	108	1	108	100·	11	...	...	...	...
Do. ...	Sahoria Subhai ...	4	37	4	37	100·	4	...	...	...	...
Santal Parganas ...	Amanat Sarcar Sarfarajganj.	1	177	1	177	100·	...	1	45	25·42	...
Ditto ...	Amanat Sarcar Madia	1	158	1	158	100·	...	1	39	24·68	...
Ditto ...	Gridline Fudikpur ...	3	73	3	73	100·	...	3	18	24·65	...
Ditto ...	Jagir Nathu Hawildar	1	15	1	15	100·	...	1	2	13·3	...
Ditto ...	Syedpur Amanat Sarcar.	1	83	1	83	100·	...	1	50	60·24	...
Ditto ...	Naya Bazar ...	1	31	1	31	100·	...	1	21	67·74	...
Ditto ...	Railway B class land...	9	127	9	127	100·	...	9	50	39·37	...
Ditto ...	Bijoypur relinquished station land.	1	8	1	8	100·	...	1	6	75·	...
Ditto ...	Sahebjanj Touzi No. 599.	8	2,477	8	2,477	100·	122	8	350	14·13	...
Ditto ...	Other Khas Mahal Touzi No. 117.	2	50	2	50	100·	...	...	..	...	...
Orissa Division.											
Cuttack ...	Banki	144	23,604	125	12,127	51·4	471	124	3,850	16·3	932
Do. ...	Town Khas Mahal ...	35	3,187	35	3,187	100·	35	35	717	22·5	...
Do. ...	Cantonment Khas Mahal.	13	521	13	300	57·5	34	13	200	38·3	...
Balasore ...	Nayanund Birso ...	104	11,372	...	...	...	...	...	...	...	...
Do. ...	Chandbali ...	1	130	...	...	...	...	...	...	...	...
Do. ...	Bhadrak Salt Gola ...	1	1	...	...	...	...	...	...	...	...
Angul	Angul	632	32,181	607	31,275	97·	1,288	195	10,370	33·	33
Puri	Kodhar	18	787	18	787	100·	...	5	50	6·35	...
Do.	Balukhand ...	1	305	1	305	100·	...	1	52	17·	...
Sambalpur ...	Malguyari ...	116	6,437	116	6,206	96·	318	57	2,465	38·	60
Ditto ...	Thikadari (Gaontiahi)	811	37,948	811	33,831	94·	2,107	239	12,020	32·	248
Ditto ...	Raiyatwari ...	16	246	16	241	98·	11	1	38	15·	1
Ditto ...	Zamindari ...	995	24,813	994	23,044	93·	1,349	169	4,837	19·	188
Chota Nagpur Division.											
Hazaribagh ...	Hata	22	2,173	22	2,173	100·	...	...	...	...	...
Ditto ...	Koderma	101	[illegible]	15	814	26·02	172	...	...	...	...
Ranchi ...	Barkagarh ...	89	6,179	62	206	3·33	...	54	860	13·9	...
Do. ...	Patia	8	648	8	100	15·43	...	5	105	16·20	...
Palamau ...	Palamau and Baldeuri	399	17,257	399	17,257	100·	...	140	6,118	35·47	102
	Total ...	3,998	2,06,207	3,615	1,60,224	77·70	6,415	1,356	56,646	27·47	2,038

APPENDIX X—*concluded.*

WARDS' ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Check by Tahsildars and other Subordinate Agency.				Check by Manager and other Superior Agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
aya	Maksudpur ...	102	5,913	46	2,695	5·	5	26	1,171	19·7	15
Do.	Deo Raja's and Rani's Estates. Deo	133	9,307	...	...	...	...	82	5,963	64·7	2
Shahabad ...	Surjapur ...	33	3,192	33	3,192	100·	...	33	3,192	100·	...
Tirhut Division.											
Saran ...	Chautaria ...	33	2,411	30	1,742	72·2	99	7	69	2·4	...
Do. ...	Khojwa ...	49	1,304	32	2,[illegible]	75·1	312	4	10	0·02	...
Do. ...	Musirakh ...	72	5,921	23	2,641	73·3	133	10	53	0·09	38
Muzaffarpur, Saran and Champaran.	Bettiah ...	1,079	2,29,919	301	27,474	92·7	...	233	24,663	83·01	...
Darbhanga, Muzaffarpur, Patna and Monghyr.	Narhan ...	193	23,520	193	23,520	100·	2,168	31	4,949	21·04	508
Muzaffarpur ...	Mahtha ...	99	5,157	80	3,[illegible]	[illegible]	124	12	947	17·32	23
Ditto ...	Tamkohi ...	77	3,311	77	3,311	100·	105	21	903	27·2	...
Ditto ...	Sursund No. I ...	[illegible]	6,572	[illegible]	6,572	100·	...	48	1,675	25·4	9
Ditto ...	Do. No. II ...	88	3,02[illegible]	[illegible]	[illegible],02[illegible]	100·	...	15	575	19·	...
Bhagalpur Division.											
Monghyr ...	Bahadurpur ...	41	9,713	41	9,713	100·	...	41	9,713	100·	...
Ditto ...	Shakarpura ...	21	2,[illegible]30	21	2,630	100·	...	21	2,630	100·	...
Ditto ...	Ratan ...	176	4,197	176	4,197	100·	...	176	4,197	100·	...
Ditto ...	Chapraon ...	102	4,989	102	4,989	100·	...	102	4,989	100·	...
Bhagalpur ...	Sonbarsa ...	122	16,498	122	16,498	100·	...	122	16,498	100·	...
Ditto ...	Panjwara ...	49	2,241	49	2,241	100·	...	49	2,241	100·	...
Ditto ...	Sukhpur ...	42	4,020	42	4,020	100·	...	42	4,020	100·	...
Ditto	Lugma ...	22	1,870	22	1,870	100·	...	22	1,870	100·	...
Ditto ...	Shahpur ...	27	1,[illegible]2	27	1,[illegible]2	100·	...	27	1,462	100·	...
Ditto ...	Barari ...	608	27,411	545	15,912	62·2	...	275	3,712	14·3	...
Santal Pargnas ...	Pakour ...	82	12,158	82	12,158	100·	23	82	12,158	100·	...
Orissa Division											
Cuttack ...	Dompara ...	28	6,620	28	6,[illegible]20	100·	...	18	338	5·1	...
Ditto ...	Darpan ...	332	26,023	271	17,530	67·36	270	95	1,408	5·41	35
Puri ...	Parikud ...	64	6,2[illegible]8	62	3,2[illegible]5	5[illegible]·22	...	33	1,808	46·16	...
Chota Nagpur Division.											
Ranchi ...	Armai ...	125	3,2[illegible]5	65	1,705	52·7	...	10	204	6·3	...
Do. ...	Bira ...	187	2,152	100	1,[illegible]1	53·3	...	14	170	7·8	...
Do. ...	Toto ...	10	78[illegible]	12	524	69·7	...	4	42	5·3	...
Do. ...	Kulmunda ...	12	208	8	175	58·7	...	2	16	5·4	...
Do. ...	Masmano ...	18	715	11	[illegible]510	71·2	...	5	39	5·5	...
Do. ...	Bajpur ...	7	458	6	398	90·9	...	2	25	5·7	...
Do. ...	Jeria ...	280	2,940	181	1,824	62·	...	20	230	7·8	...
Do. ...	Parba ...	39	170	21	91	53·5	...	3	35	20·6	...
Do. ...	Barkibeura ...	9	12	[illegible]	[illegible]0[illegible]	[illegible]9·5	.	3	15	21·2	...
Do. ...	Jamudag ...	47	321	25	173	53·4	...	14	72	22·2	...
Do. ...	Oreydaru ...	1	187	1	187	100·	...	1	18	9·6	...
Do. ...	Saryamdih ...	31	752	19	402	53·5	...	4	40	5·3	...
Do. ...	Janampirhi ...	22	262	16	195	74·4	...	1	18	6·9	...
Do. ...	Loro ...	11	261	9	[illegible]8	75·	...	2	19	7·2	...
Do. ...	Siri ...	79	722	44	410	56·8	...	9	42	5·8	...
Do. ...	Tamar ...	79	1,067	42	693	57·3	...	10	69	6·5	...
	Total ...	5,579	4,40,946	3,219	1,91,681	45·47	[illegible],239	1,731	1,12,399	25·47	630

APPENDIX XI.

[*See* Chapter, V, Part I, of the Report.]

Result of Inspection of Boundary marks during the year ending the 30th September, 1913.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT ESTATES AND TEMPORARILY-SETTLED ESTATES.										
Patna Division.										
Shahabad ...	148	49	781	781	779	...	2(*a*)	...		
Gaya	31	34	1,247	1,095	981	...	114	2	Rupees 4	
Tirhut Division.										
Saran	21	8	300	300	300	...	...	...	...	
Champaran ...		Not reported.		31	24	7	...	...	...	
Muzaffarpur ...	154	153	1,723	1,579	1,578	1	...	...	...	
Darbhanga ...	2	2	56	56	56	...	...	...	...	
Bhagalpur Division.										
Monghyr	65	65	Not known	25	25	...	...	...		
Bhagalpur ...	27	26	98	50	40	6(*b*)	4(*b*)	3	Cost met from Khas mahal funds.	
Purnea	5	5	31	31	31	...	...	...	...	
Santal Parganas ...	8(*c*)	8	4,233	1,500	1,489	1	10	11	Rupees 11-6-0, cost of 9 pillars was realized from the villagers concerned.	
Orissa Division.										
Balasore	1,647	1,647	7,005	2,278	2,195	2	81	79	Cost met from grant for maintenance of records in Orissa.	
Cuttack	5,682	5,682	9,667	1,433	1,418	...	15	14	Ditto.	
Puri	501	501	3,798	3,793	3,714	36	48	...	...	
Angul and Khondmals	1	2	2,667(*d*)	1,114	1,106	8	...	...	...	
Sambalpur ...	1,937(*e*)	1,911	59,624	59,624	58,983	639	2	641	...	
Chota Nagpur Division.										
Ranchi	3	3	233	173	147	26	...	26	The damaged marks were repaired by villagers.	
Hazaribagh ...	3	3	2,078	313	305	8	...	...	...	
Palamau	2	2	17,125	17,125	13,032	3,711	382	4,044	Rupees 3. Met from improvement grant of Khas Mahal.	
Singhbhum ...	1	1	2,745	2,677	2,436	241	...	151	Rupees 146. Relates to restoration of marks between Singhbhum and Mayurbhanj State. One-half of the amount was borne by Government and the other half by the Mayurbhanj State.	
Total ...	10,241	10,162	1,13,441	93,983	78,639	4,686	658	4,971		

(*a*) Diluviated by the action of the river Ganges.
(*b*) Seven of the pillars damaged and missing have fallen into the bed of the rivers Ganges and Kosi.
(*c*) Surveyed under Regulation III of 1872.
(*d*) Includes 30 new exterior pillars constructed in the Angul Subdivision on the borders of Narsingpur and Athmalik, the cost of which was met from funds sanctioned for the demarcation of the boundaries between Angul and the two States mentioned above.
(*e*) Surveyed under section 27 of the Land Revenue Act of Central Provinces.

APPENDIX XI—*continued.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
WARDS' ESTATES.										
Patna Division.										
Gaya	76	76	709	328	274	...	54	1	...	
Tirhut Division.										
Saran ...	249(*f*)	249(*f*)	1,747	1,498	1,450	30	18	3	Rupees 6. ...	One man was prosecuted and was fined Rs. 6.
Champaran ...	1,692	1,692	Not known	7,435	5,558	735	1,142		...	
Muzaffarpur ...	113	113	374	542	523	...	19	19(*g*)	...	
Darbhanga ...	196	196	1,048	1,018	962	15	71	54	Rupees 286.	
Bhagalpur Division.										
Monghyr... ...	300	300	300	269	269	...	...	...	...	
Bhagalpur ...	378	363	2,480	1,994	1,887	21	86	...	...	
Santal Parganas ...	3(*h*)	3	508	508	507	1	2	1	Rupees 3. Cost realized from the mandal of the village.	
Orissa Division.										
Cuttack	2	2	420	420	411	1	8	...	...	
Chota Nagpur Division.										
Ranchi	36	33	1,421	1,421	1,421	...	...	...	...	
Hazaribagh ...	1	...	2,277	1,518	1,518	...	...	...	...	
Total ...	3,046	3,030	11,275	16,981	14,778	803	1,400	78		
ZAMINDARI ESTATES.										
Patna Division.										
Gaya	575	575	6,430	5,773	4,299	997	477	...	...	
Tirhut Division.										
Saran	5,805	5,805	Not known	15,616	14,544	601	471	...	...	
Champaran ...	Not reported.	Not known		2,477	2,231	84	162	...	...	
Muzaffarpur ...	6,528	6,528	21,408	21,408	20,965	85	358	108	...	
Bhagalpur Division.										
Monghyr... ...	8,048	5,425	5,359	3,213	3,116	51	46	97	...	
Bhagalpur ...	3,073	3,073	6,350	4,983	4,701	83	199	50	...	
Purnea	Not reported.		2,023	2,023	1,992	...	31	...	...	
Santal Parganas ...	472(*h*)	472	14,590	1,833	1,724	22	87	42	Rupees 71-8-0. Of the 42 marks restored the cost in respect of 16 was realized from the villagers and that of 26 from the zamindars.	

(*f*) Exclusive of the Majhauli and Hathwa Wards Estates for which no figures have been received.

(*g*) Stone pillars have been sent out to Thikadars and Tahsildars to replace missing stones. Rupees 631 were paid on account of these stones.

(*h*) Surveyed under Regulation III of 1872.

APPENDIX XI—*concluded.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11

ZAMINDARI ESTATES—*concluded.*

Chota Nagpur Division.										
Ranchi	1	1	5,921	5,921	5,908	13	...	13	...	
Hazaribagh ...	51	...	4,234	...	...	...	...	...	...	
Manbhum ...	2	2	1,640	627	384	132	111	...	...	
Singhbhum ...	2	2	4,663	4,663	4,546	103	14	31	Rupees 60. Relates to restoration of marks between Singhbhum and the Mayurbhanj State. One-half of the amount was borne by Government and the other half by the Mayurbhanj State.	One case for destroying a trijunction mark was instituted in the Criminal Courts. The accused was fined Rs. 30.
Total ...	24,557	21,883	72,618	68,537	64,410	2,171	1,956	341		
Grand Total ...	37,844	35,037	1,97,334	1,79,501	1,57,827	7,660	4,014	5,390		

N.B.—The figures against "Total" and "Grand Total" in columns 2 to 4 are not complete for want of figures in certain cases.

APPENDIX XII.

Statement showing progress of Survey and Settlement work in the Province by district and divisions up to 30th September, 1913.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September 1913, (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September 1913, (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	1,936	119	2,055	1,936	119	2,055	...	...	...	...	...	...
Gaya	4,620	92	4,712	719	92	811	78	...	78	3,823	...	3,823
Shahabad	4,162	211	4,373	3,938	116	4,054	142	78	220	82	17	99
Divisional Total ...	10,718	422	11,140	6,593	327	6,920	220	78	298	3,905	17	3,922
Tirhut Division.												
Saran	2,633	41	2,674	2,439	41	2,480	194	...	194	...	...	...
Champaran	3,528	3	3,531	3,247	3	3,250	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,308	40	3,348	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	12,473	115	12,588	11,991	44	12,035	482	71	553	...	...	...
Bhagalpur Division.												
Monghyr	3,742	95	3,837	3,722	95	3,817	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	263	4,994	4,731	14	4,745	...	249	249	...	...	...
Santal Parganas ...	4,087	1,383	5,470	3,983	1,205	5,188	...	...	...	104	178	282
Divisional Total ...	16,676	1,783	18,459	16,[illegible]	1,356	17,508	420	249	669	104	178	282
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	385	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	669	669	...	233	233	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	...	463	463	...	375	375
Divisional Total ...	2,238	11,526	13,764	666	9,655	10,321	1,416	696	2,112	156	1,175	1,331
Chota Nagpur Division.												
Hazaribagh	6,857	164	7,021	3,312	56	3,368	...	52	52	3,545	56	3,601
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau		613	4,844	...	294	294	28	319	347	4,203	...	4,203
Manbhum		275	4,147	934	...	934	...	...	...	2,938	275	3,213
Singhbhum	2,573	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	24,636	3,007	27,643	13,685	1,563	15,248	265	1,113	1,378	10,686	331	11,017
Provincial ...	66,741	16,853	83,594	49,087	12,945	62,032	2,803	2,207	5,010	14,851	1,701	16,552

N. B.—The areas shown in this Appendix are approximate

APPENDIX XIII.—PART A.

Summary of the outturn of Traverse Surveys for the year ending 30th September, 1913.

[*See* Chapters II and III, Part II of the Report.]

District.	Traversing.					Remarks.
	Number of villages.	Linear miles of chaining.	Number of stations at which theodolites were set up.	Number of azimuths.	Number of Sub-Traverses.	
1	2	3	4	5	6	7
PRIVATE ESTATES.						
Gaya	1,385	5,270	23,070	91	1,291	
Palamau	589	3,794	25,061	160	1,139	
MISCELLANEOUS.						
Santal Parganas :—(Sauria Paharia tract).	103	319	3,479	13	130	
Bhagalpur :—Rampur Dharo and Majaura boundary dispute.	...	4	39	2	...	
Do. :—Nepal-Bhagalpur boundary.	...	6	18	...	...	
Champaran :—Bettiah-Tamkuhi boundary dispute.	...	17	38	3	...	
Darbhanga :—Lorika-Bishunpur boundary dispute.	...	.....	.....	...	...	Trijunction relaid.
Muzaffarpur :—Jafrabad-Toke boundary dispute.	1	12	37	...	...	
Shahabad :—Shahpur Diara disputed area.	...	9	35	...	...	
Patna :—Patna Municipality ...	4 blocks	157	6,447	9	518	
Total ...	2,587	9,588	58,224	278	3,078	...

APPENDIX XIII.—PART B.

Statement of outturn and cost rates of Traverse Surveys.

(District Operations.)

[*See* Chapter II, Part II of the Report.]

District.	Description of work.	Estimated area to be dealt with in square miles.	Year of inception of operations.	Area surveyed in square miles.		Cost rate per square mile.		Balance of area remaining to be surveyed.	Estimated cost of completing the area in column 9.	Estimated final cost rate per square mile.
				During the year under report.	Total including previous years.	During the year under report.	From inception of the operations to the end of the year under report.			
1	2	3	4	5	6	7	8	9	10	11
Gaya	Traverse	3,850	1911	1,370	2,450	32·54	32·80	1,400	44,800	32·52
Palamau	Ditto...	4,242	1912	1,206	1,206	33·68	33·68	3,036	1,00,188	33·20
Total ...		8,092	...	2,576	3,656	...	...	4,436	1,44,988	...

APPENDIX XIV.

Statement of Expenditure on Traverse Surveys and the Bihar and Orissa Drawing Office for the year ending 30th September, 1913.

[*See* Chapters II, III and IV, Part II of the Report.]

District, etc.	Description of work.	Expenditure incurred during the year under report.			Total expenditure from inception of the operations to end of the year under report.		
		Actual cost.	Approximate share of control.	Total.	Actual cost.	Approximate share of control.	Total.
1	2	3	4	5	6	7	8
Gaya	Traversing	41,269	3,301	44,570	72,178	8,204	80,382
Palamau	Do.	37,606	3,008	40,614	37,606	3,008	40,614
MISCELLANEOUS.							
Santal Parganas. (Sauria Paharia tract).	Do.	8,166	653	8,819	8,166	653	8,819
Bhagalpur.—Rampur-Dharo and Majaura.	Demarcation of Revenue Survey boundary.	705	56	761	705	56	761
Bhagalpur.—Nepal-Bhagalpur boundary.	Relaying lost pillars ...	304	24	328	304	24	328
Champaran.—Bettiah-Tamkuhi Raj boundary.	Relaying Diara Survey boundary.	525	42	567	525	42	567
Darbhanga.—Lorika-Bishunpur boundary.	Relaying lost trijunction	115	9	124	115	9	124
Muzaffarpur.—Jafrabad-Toke boundary.	Relaying Diara Survey boundary.	396	32	428	396	32	428
Shahabad.—Shahpur Diara	Traversing ...	198	16	214	198	16	214
Patna.—Patna Municipality	Traversing and detail survey.	3,290	263	3,553	3,290	263	3,553
Total ...	Traversing and demarcation.	92,574	7,404	99,978	1,23,483	12,307	1,35,790
Bihar and Orissa Drawing Office.	Standard maps ...	37,140	2,971	40,111	2,92,616	34,158	3,26,774
	Badars	5,457	436	5,893	49,187	5,418	54,605
	Map Records ...	5,599	448	6,047	45,730	5,097	50,827
	Thana Maps ...	(a)10,753	860	11,613	46,177	5,320	51,497
	Reproduction of Trijunction Mark Maps.	340	27	367	16,495	1,967	18,462
	District Maps ...	993	79	1,072	7,766	931	8,697
	Cadastral Diara Maps ...	(b)2,930	234	3,164	10,647	1,554	12,201
	Reproduction for attestation.	2,569	205	2,774	26,745	2,435	29,180
	Reproduction for distribution and sale.	48,286	3,864	52,150	6,26,752	61,443	6,88,195
	Reproduction—small scale mujmill's and other miscellaneous maps.	11	1	12	11	1	12
	Index maps for Annual Report.	43	3	46	937	158	1,095
	Reproduction of rough and preliminary Thana Maps.	130	10	140	130	10	140
	Extra Departmental ...	5,468	437	5,905	20,692	2,477	23,169
	Total ...	1,19,719	9,575	1,29,294	11,43,885	1,20,969	12,64,854
	GRAND TOTAL ...	2,12,293	16,979	2,29,272	12,67,368	1,33,276	14,00,644

(a) Includes Rs. 2,355—cost of reproduction.
(b) Includes Rs. 195—cost of reproduction.

APPENDIX XV.

APPEN

DETAILS OF OUTTURN OF THE BIHAR AND ORISSA DRAWING OFFICE

[*See* Chapter IV, Part

Standard Maps.									Traverse Charts.	
Sent for publication.	Complete except final examination.	Complete for recent surveys held up for future surveys.	In hand in various stages for publication.	In pencil with boundaries in blue for thana mapping purposes.		Published for revision survey.	Fiscal boundaries coloured.			
				Completed.	In hand.					
Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Published prints.	Unpublished prints.	Completed.	In hand.
1	2	3	4	5	6	7	8	9	10	11
64 O/13 ...	.....	63 O/7·8·11·14·15 ...	63 O/12·16 ...	.....	.....	72 P/3 to 15 These have been included in column 1.	24	48	...	...
72 C/14; 72 G/7·11·15	.....	63 P/5·6·10·14 ...	63 P/9·13 ...	.....	.....	.....	.....	26 Uncorrected proofs have also been examined and corrected.	...	...
72 L/11·12·15·16 ...	.....	64 O/9·10 ...	64 K/12·16 ...	.....	.....	.....	.....	.....	...	...
72 O/12·16; 72 G/10&14	.....	72 C/2·6·8·10·11·12 ...	64 L/9·13 ...	.....	.....	.....	.....	.....	...	...
Old No. 145 in four sections.	.....	72 C/15·16; 72 D/1·2·5	64 O/4·6·7·8·11 ...	.....	.....	.....	.....	.....	...	...
73 C/1·4·5·7 ...	.....	72 G/3·4·8·12·16 ...	64 O/12·14·15·16 ...	.....	.....	.....	.....	.....	...	...
72 P/3 to 15 ...	.....	72 H/13; 73 I/1·2·3·9	64 P/1·5 ...	.....	.....	.....	.....	.....	...	...
.....	.....	73 I/13; 78 B/6·8 ...	72 C/3·4·7 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	73 C/2·3 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	72 A/11·12·15·16 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	73 E/1 to 16 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	73 J/1·2·3·5·6·7 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	73 J/10·11·12·14·15·16	.....	.....	.....	.....	.....	...	...
.....	.....	.....	M/1·5 ...	.....	.....	.....	.....	.....	...	...
.....	.....	.....	..

DIX XV.

FOR THE YEAR ENDING 30TH SEPTEMBER, 1913.

II of the Report.]

Ganges Diara Maps. (Preliminary Stage.)			Thana Trijunction Marks and District Maps.													
Completed.					Thana Maps.						Trijunction Marks Maps.			District Maps.		
					Final.			Preliminary.								
During year.	Previously.	Total.	In hand.	District.	Thana.	Sheets.	Copies.	Thana.	Sheets.	Copies.	Thana.	Sheets.	Copies.	Completed.	In hand.	
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
(a) 22	22	(a) 22	61		Bangaon (b) ...	1	70	*District Sambalpur.* Ambabhona ...	1	200	*Shahabad District.* Mohania ...	6	192	...	...	
...	...	...	...	North Bhagalpur	Kishanganj (b) ...	1	70	Bhatli ...	1	200	Bhabhua ...	12	384	...	...	
...	...	...	...		Pratapganj (b) ...	1	70	Bargarh ...	1	200	*Balasore.* Balasore ...	1	30	...	...	
...	...	...	...		Raniganj (b) ...	1	70	Attabira ...	1	...	Soro	2	60	...	...	
...	...	...	...		Forbesganj (b) ...	2	140	Barpali (b) ...	1	200	Basudebpur ...	1	30	...	...	
...	...	...	...		Araria (b) ...	1	70	Sambalpur ...	1	...	Dhamnagar ...	1	30	...	...	
...	...	...	...		Kishanganj (b) ...	1	70	Dhama ...	1	...	Basta ...	1	30	...	...	
...	...	...	...		Dhamdaha (b) ...	2	140	Rampella (b) ...	1	200	Bhadrak ...	2	60	...	...	
...	...	...	...	Purnea ...	Kasba Amur ...	1	70	Sason ...	1	...	Jaleswar ...	1	30	...	...	
...	...	...	...		Purnea ...	2	140	Bheran (b) ...	1	200	Chandbali ...	1	30	...	...	
...	...	...	...		Gopalpur ...	1	70	Mundher ...	1	...	Baliapal ...	1	30	...	...	
...	...	...	...		Bahadurganj ...	1	70	Sohella (b) ...	1	200	*Cuttack.* Cuttack ...	2	60	...	...	
...	...	...	...		Korah ...	2	140	Mura ...	1	...	Aul	2	60	...	...	
...	...	...	...		Kadwa ...	1	...	Bijepur (b) ...	1	200	Tirtol ...	2	60	...	...	
...	...	...	...		Katihar ...	2	...	Katarbaga ...	1	...	Kendrapara ...	2	60	...	...	
...	...	...	...		Islampur ...	2	...	Gaisilat ...	1	...	Jajpur ...	2	60	...	...	
...	...	...	...	Darbhanga ...	Darbhanga (b) ...	2	140	Melchhamunda (b)	1	100	Dharamsala ...	3	90	...	...	
...	...	...	...	North Monghyr ...	Teghra ...	1	...	Leikera ...	1	...	Salepur ...	1	30	...	...	
...	...	...	...		Banki ...	1	70	Jharsogra ...	1	...	Jagatsingpur ...	2	60	...	...	
...	...	...	...		Cuttack ...	1	...	Padampur ...	1	...	Patamundi ...	2	60	...	...	
...	...	...	...	Cuttack ...	Jajpur ...	1	...	Paikmal ...	1	...	*Puri.* Khurda ...	3	90	...	...	
...	...	...	...		Dharamsala ...	3	...	Jagdalpur ...	1	...	Gop	2	60	...	...	
...	...	...	...		Kendrapara ...	1	...	*Santal Parganas.*	...	...	Pipli	3	90	...	...	
...	...	...	...	Puri ...	Khurda ...	3	...	Dumka (b) ...	6	600	Puri	3	90	...	...	
...	...	...	...		Pipli ...	2	...	Deogarh (b) ...	5	500	*Gaya.* Arwal ...	4	80	...	...	
...	...	...	...		Balugaon ...	2	...	Jamtara ...	4	...	Daudnagar ...	4	80	...	...	
...	...	...	...		Dhamnagar ...	1	...	*Shahabad.* Mohonia ...	3	300	Nabinagar ...	5	100	...	...	
...	...	...	...		Bhadrakh ...	1	...	Karghar ...	2	200	Aurangabad ...	11	220	...	...	
...	...	...	...	Balasore ...	Soro ...	1	...	Bhabhua ...	4	400	*Santal Parganas.* Pakaur ...	7	105	...	...	
...	...	...	...		Basudebpur ...	1	...	*Puri.* Pipli ...	5	290	Rajmahal ...	6	...	...	...	
...	...	...	...	.....	.....	...	...	Gop	2	60	Godda ...	9	...	...	...	
...	...	...	...	.....	.....	...	...	*Cuttack.* Salepur ...	2	60	Dumka ...	17	...	...	...	
...	...	...	...	.....	.....	...	...	Kendrapara ...	2	60	Deoghar ...	12	...	...	...	
...	...	...	...	.....	.....	...	...	Aul	2	60	Jamtara ...	10	...	...	...	
...	...	...	...	.....	.....	...	...	Cuttack ...	2	60	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	Patamundi ...	2	60	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
...	...	...	...	.....	.....	...	...	.....	...	...	.....	...	...	...	...	
22	22	22	61	.....	.....	43	1,400	.....	63	4,350	.....	143	2,361	...	...	

village boundaries "inter se" having to be shown. Seven of these and 9 others have been published, but were printed during the year.

APPENDIX

DETAILS OF OUTTURN OF THE BIHAR AND ORISSA DRAWING OFFICE

District.	Reproduction of Village Maps.									Badar Section.						
	Class of Reproduction.	Season of survey, if any.	Previously supplied.		Supplied during the year.		Total to date.		Complete or incomplete.	Badars corrected in original maps.	Thana numbers entered and village names corrected in—		Headings and adjoining village names corrected in—		Skeleton traverse plots made for Settlement Officers and others.	Prints of Standard and district maps, etc., coloured for previous surveys and on other accounts.
			Sheets or maps.	Copies.	Sheets or maps.	Copies.	Sheets or maps.	Copies.		Villages.	Traverse volumes. Villages.	Field books. Villages.	Villages.	Sheets.		
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Gaya	Revision ...	...	...	...	635	1,274	635	1,274	Complete.	...	...	...	...	...	...	...
	Attestation ...	1912-13	...	...	2,931	12,952	2,931	12,952	Incomplete	...	...	..	...	...	...	...
Patna	.....	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...
Shahabad	Final ...	1908-12	3,519	290,528	3,801	1,90,104	7,320	4,80,632	Incomplete	163	481	...	...	...	...	...
	Attestation ...	1911-12	1,318	5,122	137	472	1,455	5,594	...	...	...	...	...	...	...	...
Champaran ...	Blue prints ...	1892-96	...	...	2,909	6,593	2,909	6,593	Incomplete	...	...	...	...	...	...	...
Darbhanga ...	Unforeseen ...	1897-1900	418	4,180	603	6,030	1,021	10,210	Complete	...	...	...	...	...	...	...
Muzaffarpur ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saran	Unforeseen ...	1895-99	...	...	703	7,060	706	7,060	Complete	...	...	...	...	...	...	...
Bhagalpur ...	.....	...	...	...	...	...	...	...	...	1	358	432	...	...	...	...
Monghyr	Unforeseen ...	1907-09	...	...	884	17,680	884	17,680	Complete	5	7	851	...	...	1 village in 14 sheets.	...
Purnea	Unforeseen ...	...	...	...	127	838	127	838	Complete	...	...	...	...	...	...	...
Santal Parganas ...	.....	...	...	...	...	...	...	...	...	5	7,538	5,220	6,189	7,346	...	...
Angul and Khondmals	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Balasore	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cuttack	Final ...	1909-11	7,084	252,799	128	6,930	7,222	259,729	Complete	...	...	...	...	...	...	...
Puri	Final ...	1910-11	...	...	3,102	90,044	3,102	90,044	Complete	...	...	...	...	...	...	...
Sambalpur ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hazaribagh ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Manbhum ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamau	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ranchi	.....	...	...	...	...	...	...	...	...	...	1,156	1,130	...	...	...	...
Singhbhum ...	.....	...	...	...	...	...	...	...	...	...	294	619	...	...	...	...
Srinagar Banaili Raj ..	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Udaipur State ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
United Provinces ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diara Survey ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quasi official and Miscellaneous work.	.....	...	...	...	406	6,584	406	6,584	Complete	...	...	...	...	...	...	...
Province of Bihar and Orissa.	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lohardaga (*h*) ...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Correction Slips ...	.....	...	...	...	1	60	1	60	Complete	...	...	...	...	...	...	...
2" Reductions ...	.....	...	...	...	41	1,312	41	1,312	Complete	...	...	...	...	...	...	...
Survey and Settlement maps.	.....	...	...	...	2	920	2	920	Complete	...	...	...	...	...	...	...
Diara maps ...	.....	...	...	...	16	677	16	677	Incomplete	...	...	...	...	...	...	...
Total ...	.....	...	...	...	16,459	3,49,530	...	...	...	180	9,734	8,252	6,189	7,346	...	...

XV—*concluded.*

FOR THE YEAR ENDING 30TH SEPTEMBER 1913.

Map Record Section.																						Extra departmental work.	
Original cadastral and topo. maps.			Revenue Diara and Miscellaneous Survey maps.			Traverse volumes of all kinds.			Field books of all kinds.			Calcutta Survey Fair Maps.			Thana, Trijunction, Index and other maps and traverse plots.			Traces for reproduction.						Copies supplied of revenue, diara and other survey maps.	Maps compiled for officials and others.
Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During year.	Total.	Previously.	During the year.	Grand Total.		
Sheets.	Sheets.	Sheets.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Volumes.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Sheets.	Previously.				
45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
3,395	...	3,395	53	...	53	24	1	25	45	...	45	...	...	...	47	31	78	284	...	284	3,848	32	3,880	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5,737	...	5,737	12	...	18	36	...	36	67	...	67	...	...	...	266	42	308	25	...	25	6,149	42	6,191	...	...
9,895	2,844	12,739	41	...	41	36	8	44	115	11	126	...	...	...	91	64	155	...	276	276	10,178	3,203	13,381	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5,805	...	5,805	...	...	...	25	...	25	52	...	52	...	...	...	31	...	31	5,428	...	5,428	11,341	...	11,341	...	...
9,082	...	9,082	45	...	45	36	...	36	71	...	71	...	...	...	293	4	297	7,558	...	7,558	17,085	4	17,089	...	...
6,358	...	6,358	...	...	...	25	...	25	54	...	54	...	...	...	35	2	37	6,250	...	6,250	12,722	2	12,724	...	...
7,270	...	7,270	36	...	36	30	...	30	87	...	87	...	...	...	27	1	28	6,541	...	6,541	13,991	1	13,992	...	...
5,919	...	5,919	58	...	58	31	2	33	62	4	66	...	...	...	349	16	365	2,335	2	2,337	8,754	24	8,778	...	...
7,951	...	7,951	31	...	31	44	1	45	93	1	94	...	...	...	482	11	493	3,468	1	3,469	12,069	14	12,083	...	...
8,187	...	8,187	47	...	47	42	1	43	81	1	82	...	...	...	446	13	459	2,118	...	2,118	10,921	15	10,936	...	...
11,058	...	11,058	...	...	...	65	...	65	130	...	130	...	...	...	533	2	535	11	...	11	12,097	2	12,099	...	...
975	...	975	...	...	...	...	...	...	...	...	...	...	...	...	7	...	7	2,022	...	2,022	3,004	...	3,004	...	...
4,257	...	4,257	20	...	20	29	...	29	60	...	60	...	...	...	13	11	24	8,119	...	8,119	12,498	11	12,509	...	...
8,341	...	8,341	43	...	43	63	...	63	122	...	123	...	...	...	53	24	77	7,414	138	7,552	16,037	162	16,199	...	...
7,626	11	7,637	17	...	17	36	...	36	73	...	73	...	...	...	35	17	52	7,490	...	7,490	15,277	28	15,305	...	...
...	...	...	...	...	...	32	1	33	...	2	2	...	...	...	292	10	302	...	...	...	324	13	337	...	...
555	1,737	2,292	9	...	9	39	19	58	82	34	116	...	...	...	82	68	150	134	...	134	901	1,858	2,759	...	...
863	562	1,425	10	...	10	30	...	30	25	...	25	...	...	...	10	...	10	...	...	...	938	562	1,500	...	...
714	...	714	...	...	...	4	...	4	14	...	14	...	...	...	...	...	...	...	...	...	732	...	732	...	...
9,350	10	9,360	...	...	...	48	...	48	119	...	119	...	...	...	241	...	241	884	...	884	10,642	10	10,652	...	...
3,481	...	3,481	...	...	...	42	...	42	91	...	91	...	...	...	66	...	66	...	4	4	3,680	4	3,684	...	...
...	...	...	...	...	...	9	...	9	16	...	16	...	...	...	...	...	...	...	...	...	25	...	25	...	...
...	...	...	...	...	...	1	...	1	3	...	3	...	...	...	44	...	44	...	...	...	48	...	48	...	...
11	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	11	...	...
...	...	...	19	...	19	53	3	56	74	7	81	...	...	...	...	...	...	...	...	...	146	10	156	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	346	41
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
478	...	478	13	...	13	16	...	16	12	...	12	...	...	...	...	...	...	...	...	...	519	...	519	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,18,208	5,164	1,23,372	460	...	460	796	36	832	1,540	60	1,600	...	...	...	3,443	316	3,759	60,081	421	60,502	1,84,537	5,997	1,90,534	346	41

APPENDIX XVI.

Statement showing the cost per copy of different classes of Maps reproduced in the Bihar and Orissa Drawing Office during the Financial year, 1912-13.

[*See* Chapter IV, Part II of the Report.]

Class of work.	Number of copies printed.	Direct charge with stationery.	Cost per copy.	Direct charge with share of General Section.	Cost per copy.	Direct charge with share of General Section and share of cont.ol.	Cost per copy.	Remarks.
1	2	3	4	5	6	7	8	9
		Rs.	Rs. a. p.	Rs.	Rs. a. p.	Rs.	Rs. a. p.	
1. Preliminary reproduction of maps for attestation purposes, including one copy retained for the Standard Mapping Section.	18,112	220	0 1 11	2,593	0 2 3	3,060	0 2 8	
2. Final printing of village maps, including two blue prints of each sheet.	4,168,055	680	0 1 11	59,314	0 2 3	69,990	0 2 8	
3. Final thana maps ...	2,152	1,328	0 9 10	1,533	0 11 7	1,844	0 13 8	
4. Preliminary thana maps	2,500	222	0 1 5	259	0 1 7	306	0 1 11	
5. Trijunction Mark Maps	495	62	0 2 0	71	0 2 3	84	0 2 8	
6. Rough thana maps ...	500	38	0 1 2	44	0 1 4	52	0 1 7	
7. 2" Reductions ...	552	69	0 1 11	81	0 2 3	95	0 2 8	

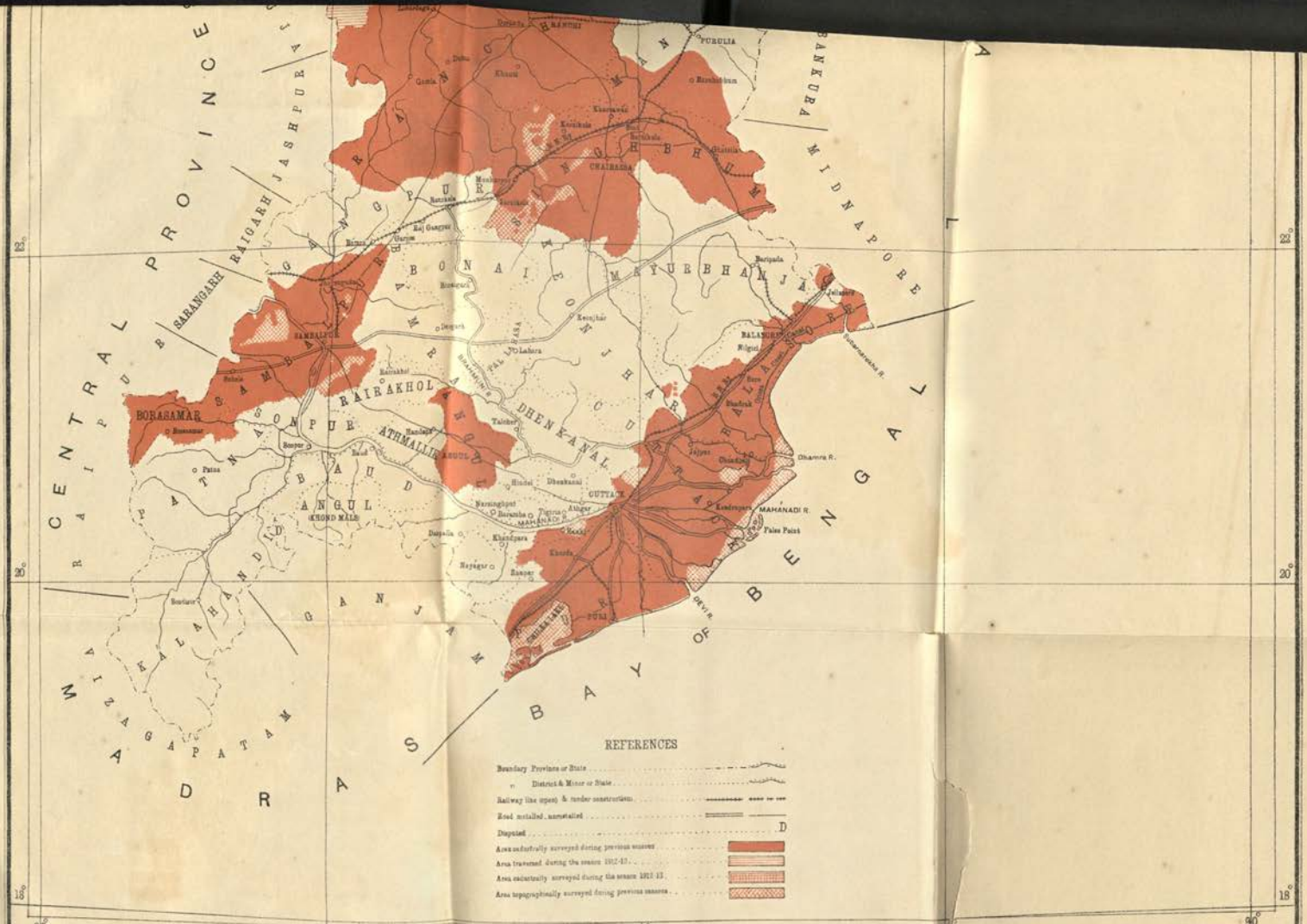
N.B.—These figures show the cost rates for work done in the Bihar and Orissa Drawing Office.
The cost rates of similar work performed at Hazaribagh by the Settlement Officer are considerably lower, *e.g.*,

	Drawing Office.	Hazaribagh.
	Rs. a. p.	Rs. a. p.
Cost rate village maps	0 2 8	0 1 2
,, ,, Attestation copies	0 2 8	0 2 3

B & O. G. P. (D. L. R.) N. 82—450—20-1-1914—J. E. R.

SURVEY MAP

THE PROVINCE
OF
BIHAR AND ORISSA
Scale 1 Inch=32 Miles, or 1:2,027,520.
NOTE.—The longitudes are referrible to the Greenwich meridian
NEPÁL
BENGAL
U. P. A. & OUDH
GORAKHPUR
BALLIA
GHAZIPUR
BENARES
MIRZAPUR
SARG
DARJEELING
JALPAIGURI
DINAJPUR
MALDA
MURSHIDÁBÁD
BIRBHUM
BURDWAN
CHAMPARAN
SARAN
MUZAFFARPUR
DARBHANGA
BHAGALPUR
PURNEA
SHAHÁBÁD
PATNA
GAYA
MONGHYR
SONTHÁL PARGANA
HAZÁRIBAGH
PALAMAU
DALTONGANJ
MOTIHARI
CHAPRA
BANKIPUR
ARRAH
DUMKA
GANGES R.
GOGRA R.
KOSI R.
82°
84°
86°
88°
90°
28°
26°
24°



Zinco. by Vandyke process in the S. & O. D. O.

BOARD OF REVENUE, BIHAR AND ORISSA.

No. 17—178-5.

FROM

J. A. HUBBACK, Esq., I.C.S.,
SECRETARY TO THE BOARD OF REVENUE, BIHAR AND ORISSA,

To

THE SECRETARY TO THE GOVERNMENT OF
BIHAR AND ORISSA, REVENUE DEPARTMENT.

Dated Bankipore, the 26th January 1914.

Member in charge:
The Hon'ble Mr. E. H. C. WALSH, C.S.I., I.C.S.

SIR,

I AM directed to submit the Survey and Settlement Report for the year ending 30th September 1913. The finally printed copy of the Report was received by the Board on the 22nd of January 1914.

2. Out of the total area of the province, 83,594 square miles, a cadastral survey has been carried out and a record-of-rights prepared and finally published for 62,032 square miles, of which all but 326 square miles has been completed under the control of the Director of Land Records. 4,259 square miles have been completed in the year under report and excluding 5,010 square miles which are covered by topographical and forest survey, for which no record-of-rights has yet been prepared, there now remains an area of 16,552 square miles for completion. Of this about half is already under survey and settlement.

3. The approximate programme of survey and settlement operations for the 20 years beginning with April 1st 1914 called for in Government of India's letter No. 248—361-4, dated the 12th February 1913, was submitted to Government by the Board in its letter No. 17—69-4, dated the 21st October 1913.

4. The programme for the year of survey and settlement was practically carried out in full. The principal exception was the failure to attest the revised records of the bulk of the villages in the area under revision in Gaya. It was not found practicable to complete attestation of the records in the same year with the revision of the maps and records in more than a few particularly simple villages belonging to the Deo Estate. The main difficulty was met in arranging for the correct extraction of the areas of the fields from the revised maps, and it has been decided with some reluctance to give up the attempt to shorten revision operations by one year.

The Ganges Diara Special Demarcation survey made no progress during the year as the staff available was required for more urgent work.

5. The traverse survey during the year appears to have been carried out with due regard to economy, but the Board notices with some concern that in Gaya no less than 17,803 theodolite stations out of 23,070 were marked with wooden pegs only. The experience gained in revision work in Gaya and elsewhere shows that rapid and accurate revision of maps cannot be ensured unless the theodolite stations can be identified on the ground with ease, and the Board is therefore enquiring from the Director of Land Records and Surveys what steps he proposes to take to mark these stations in Gaya in a more permanent manner.

6. The case of the Lorika Bishunpur boundary dispute referred to in paragraphs 118-119 of the Report illustrates the inadequacy of the staff at the immediate disposal of the District Officers for anything but the very simplest survey work. Now that a very considerable proportion of the gazetted officers of the province have had some training in survey, it should not be difficult for Collectors to come to a right decision whether any particular piece of work is beyond the capacity of their amins, and if they find it to be so, they should, without doubt, apply immediately to the Director of Land Records and Surveys for assistance.

7. In paragraph 12 of his report the Director of Land Records and Surveys has examined the defects of the present procedure for Cess Revaluation in conjunction with survey-settlement operations. The views of the Board have already been submitted to Government in letter No. 5—15-18, dated 3rd October 1913, and Government has agreed to the proposal of the Board to defer Cess Revaluation in Gaya district until the records-of-rights are completed, and a Bill for amending the sections of the Cess Act which deal with the combination of Cess Revaluation with survey-settlement operations is now being drafted.

8. The percentage of increase of rent in Government and temporarily-settled estates in Shahabad district given under section 104, Bengal Tenancy Act (paragraph 37) is about 12 per cent. while the percentage of increase given in permanently settled estates under section 105, Bengal Tenancy Act (paragraph 38) is under 9 per cent.

The higher percentage in the first named classes of estates is attributed to several causes of which the principal are :—

(*a*) A considerable proportion of the area included in these estates lies in the Gangetic *diara*, and the increase of rent in this area is largely made up of assessment to rent under the provisions of section 52 of land freshly brought under cultivation since the last settlement.

(*b*) In Government and temporarily-settled estates it is always possible to determine precisely the period of currency of the existing rent, and in the vast majority of tenancies comprised in those estates that period exceeded the statutory period of 15 years during which rents cannot be enhanced on the ground of rise in prices. In the permanently settled estates on the other hand, the proprietors were in many cases unable to prove the period of currency of the existing rent, and in some cases the tenants were successful in raising the presumption under section 50 that their rents were not liable to enhancement.

The enhancement of rents in Government and temporarily-settled estates appears to the Board to be moderate in view of the fact that an enhancement of 15 per cent. might have been imposed on the ground of rise in prices of staple food crops alone.

9. The cost rate of original cadastral survey and Khanapuri in Gaya was Rs. 151 per square mile as against Rs. 86·8 per square mile in Hazaribagh. The Director of Land Records and Surveys is of opinion that sufficient attention has not always been paid to economical management in Bihar, while he considers the low cost rate in Chota Nagpur to be highly creditable. While fully recognising the economical manner in which the officers in Chota Nagpur have carried out their work, the Board desires in fairness to the Bihar officers to draw attention to the considerable difference in the magnitude of the work to be done in the two tracts.

In Gaya for every square mile 1,193 fields had to be surveyed and khanapuried. In each square mile the detailed survey was checked by linear *partal*, personal and independent, of 3·98 miles, the Khanapuri of 190 plots was checked by all agencies, and 35 internal disputes decided.

In Hazaribagh in each square mile there were only 416 fields, only 2·06 miles of linear *partal* personal and independent was done, Khanapuri of only 64 plots was checked, and only 5 internal disputes were decided.

Even in the matter of boundary disputes, although the work of Hazaribagh approaches nearer in magnitude to the Gaya standard than in other respects, there are still 41 boundary disputes per square mile in Gaya as against 38 in Hazaribagh.

In view of these figures it does not seem to the Board surprising that the cost per square mile of cadastral survey and Khanapuri in Gaya is nearly double the cost in Hazaribagh.

10. Of other matters referred to by the Director, the Board invites the special attention of Government to the illegal enhancements of rents in Hazaribagh and the evasion of the law forbidding transfer of occupancy rights, (paragraph 48); to the grounds of the strained relations between the landlords and tenants in the Markacho, Ganwan and Satgawan Estates (paragraph 50); to the excess recovery of costs in Paraganas Barahbhum and Patkum of the district of Manbhum (paragraph 58) and to the reported defects of the experimental scheme of maintenance of records in Orissa (paragraph 74).

11. The Board desires to bring to the notice of Government the able and efficient manner in which Mr. Reid has directed and controlled the survey and settlement operations throughout the year, and concur in his remarks on the merits of the officers specially mentioned in the Report.

The lack of zeal displayed by a minority of the officers of the Provincial and Subordinate Executive Services is much to be regretted and, the Board hopes that a marked improvement in this respect will be shewn during the current year.

I have the honour to be,

SIR,

Your most obedient Servant,

J. A. HUBBACK,

Secretary.

B. & O. G. P. (Rev.) No. 99—350—5·3·1914.

No. $\frac{1556}{S.-41}$ R.

GOVERNMENT OF BIHAR AND ORISSA.

REVENUE DEPARTMENT.

LAND REVENUE BRANCH.

RESOLUTION.

Dated Ranchi, the 2nd March 1914.

READ—

The Survey and Settlement Reports for the year ending the 30th September 1913 and the remarks recorded thereon by the Board of Revenue.

AN important administrative change occurred during the year in the transfer of the control of the Survey Department to the Director of Land Records whose designation was in consequence changed to that of Director of Land Records and Surveys. As a result of this change a single report in two parts has been submitted by the Director in place of the two separate reports which were formerly submitted.

2. Traverse survey completed during the year covered an area of 2,576 square miles in the districts of Gaya and Palamau. The cost rate in Gaya was Rs. 32·54 against Rs. 33·1 in the previous year and in Palamau amounted to Rs. 33·68 including the cost of heavy revision work which was necessitated by the hilly character of the country. The cost rate in either district is not excessive.

3. In addition to the main programme, a good deal of miscellaneous work, including the relaying of the Revenue Survey and Diara Survey boundaries, the location of pillars, and the traversing of municipal areas was carried out. The most important of these minor operations was the traversing of the Sauria-Paharia tract in the Santal Parganas which was completed during the year. The case of the Lorika-Bishunpur boundary dispute in the district of Darbhanga reported by the Director in paragraphs 118 to 120 exemplifies the desirability of applying to the Department for assistance at the outset in all but the simplest cases and the Board will be asked to consider the necessity of inviting special attention to the point. The designation of the Bengal Drawing Office was changed during the year to that of the Bihar and Orissa Drawing Office its administrative control being placed in the hands of the Director of Land Records and Surveys, while the technical supervision of the Imperial Standard Mapping Section was, as an experimental measure, entrusted to the Superintendent of the Map Publication Office at Calcutta. The work of the office continued to be good and its outturn satisfactory.

4. As in the previous year, the work of the Settlement Department lay in ten districts. Besides the cadastral survey and the preparation of the record-of-rights, the settlement of fair rents and of land revenue in Government and temporarily-settled estates, the settlement of fair rents and commutation of produce-rents in permanently-settled estates, and the experimental maintenance of land records in the districts of Balasore and Cuttack continued to engage the attention of the Department. During the year the scheme for the revision of the record-of-rights in North Bihar received the sanction of His Majesty's Secretary of State for India and operations were commenced in the district of Champaran. The sanction of the Government of India was also received to the inception of resettlement operations in the Kolhan Government Estate in the district of Singhbhum.

5. The total area cadastrally surveyed during the year was 3,118 square miles as against 2,662 square miles in the previous year. Records were finally published in respect of 4,259 square miles as against 3,064 square miles (exclusive of 1,843 square miles of the Orissa Revision area) in 1911-12. The total area for which a record-of-rights has now been completed under the control of the Director of Land Records is 61,706 square miles and the average annual outturn during the last 27 years amounts to 2,286 square miles. The Lieutenant-Governor in Council learns with satisfaction that the dispute between Babu Sukhan Singh and his tenants in South Monghyr which led to the employment for the first time in this province of section 112 of the Bengal Tenancy Act is expected to be settled by an amicable arrangement.

6. In Gaya the programme of original work was completed, but in the area under revision the attempt to carry through the survey, preliminary record-writing, and attestation of the records within the period of the field season had to be abandoned, chiefly on account of the difficulty experienced in extracting areas from the revised maps in the field.

In Shahabad the programme was completed. As usual, rent disputes were very common and were due in almost every case to the failure of landlords to grant proper rent receipts. Fines were imposed on defaulting landlords under section 58 of the Bengal Tenancy Act in 40 such cases.

7. In Chota Nagpur cadastral survey and settlement work was carried on in the Hazaribagh district and in parganas Barahbhum and Patkum of the district of Manbhum. The bulk of the programme was completed in Hazaribagh, and in the Manbhum areas with the exception of the recovery of costs.

The Director of Land Records and Surveys has drawn attention to the prevalence of illegal enhancements in the district of Hazaribagh and particularly in the Padma, otherwise known as the Ramgarh Estate, which has now come under the management of the Court of Wards. The facts are indicative of the general ignorance of their rights on the part of the raiyats before the advent of the Settlement. The question of the efficiency of the existing restrictions on transfer of raiyati holdings is already receiving the attention of Government and a full report on the subject is awaited from the Director of Land Records and Surveys. His Honour in Council hopes that the disputes reported between landlord and tenants in the Markacho, Ganwan, and Satgawan estates in this district will be found capable of amicable adjustment.

The excess recovery of costs of survey and settlement operations in the parganas of Barahbhum and Patkum will receive the attention of Government, who await a further report from the Board of Revenue.

The Director of Land Records and Surveys has examined in detail the present procedure for conducting Cess Revaluation simultaneously with survey settlement operations. The amendment of the provisions of the Cess Act which relate to revaluation are now under the consideration of Government along with the question of a general revision of the Act. In the meantime Government have accepted the Board's proposal to postpone revaluation proceedings in the Gaya district until the completion of the record-of-rights for that district.

9. The experimental maintenance of records in Orissa under the triennial scheme was continued during the year in the Balasore and Cuttack districts. The Director has pointed out many defects inherent in the scheme which are largely due to circumstances peculiar to Orissa. The continuance of the maintenance system in Orissa is still under the consideration of Government.

10. The work of the Land Records establishment in Sambalpur was on the whole satisfactory. The mutation office at Bettiah in the Champaran district, which had for several years been reported to be unprofitable and unsuccessful, was abolished with the commencement of the revision settlement operations in that district. The recording of mutations in Government and Wards' Estates is still unsatisfactory. Maintenance of boundary marks continued to receive attention and the work of inspection and restoration was satisfactorily performed.

11. The charge of the Survey Department was held by Lieut.-Col. R. T. Crichton, C.I.E., until the 21st March 1913, when he went on leave and was succeeded by Mr. J. Reid, I.C.S., who remained in charge for the remainder of the year. Mr. Reid held charge of the Settlement Department throughout the year. The Lieutenant-Governor in Council desires to acknowledge the services of both these officers, of Messrs. J. D. Sifton, J. A. Hubback, P. W. Murphy, and E. L. Tanner who were in charge of Settlements, and of the other officers whose work has been commended in the reports.

ORDER.—Ordered that the Resolution be published in the *Bihar and Orissa Gazette* and that a copy of it, with copies of the Reports and of the Board's remarks thereon be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

H. COUPLAND,

Offg. Secretary to Government.

MEMO. No. 1557—58R.

Ranchi, the 2nd March 1914.

Copy, with copies of the two Reports, forwarded to the Surveyor General of / Appointment Department of India / this Government for information (with special reference to paragraph 11 of the Resolution).

( ) To appointment only.

By order, etc.,

J. C. B. DRAKE,

Under-Secretary to Government.

MEMO. No. 1559R.

Ranchi, the 2nd March 1914.

Copy forwarded to the Secretary to the Board of Revenue, Bihar and Orissa, for information with special reference to paragraphs 3 and 7 of the Resolution.

By order, etc.,

J. C. B. DRAKE,

Under-Secretary to Government.

ANNUAL REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

UNDER THE CONTROL OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS,

BIHAR AND ORISSA,

FOR THE

YEAR ENDING 30TH SEPTEMBER, 1914.

PATNA:
PRINTED AT THE BIHAR AND ORISSA GOVERNMENT PRESS.
1914.
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REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

:o:

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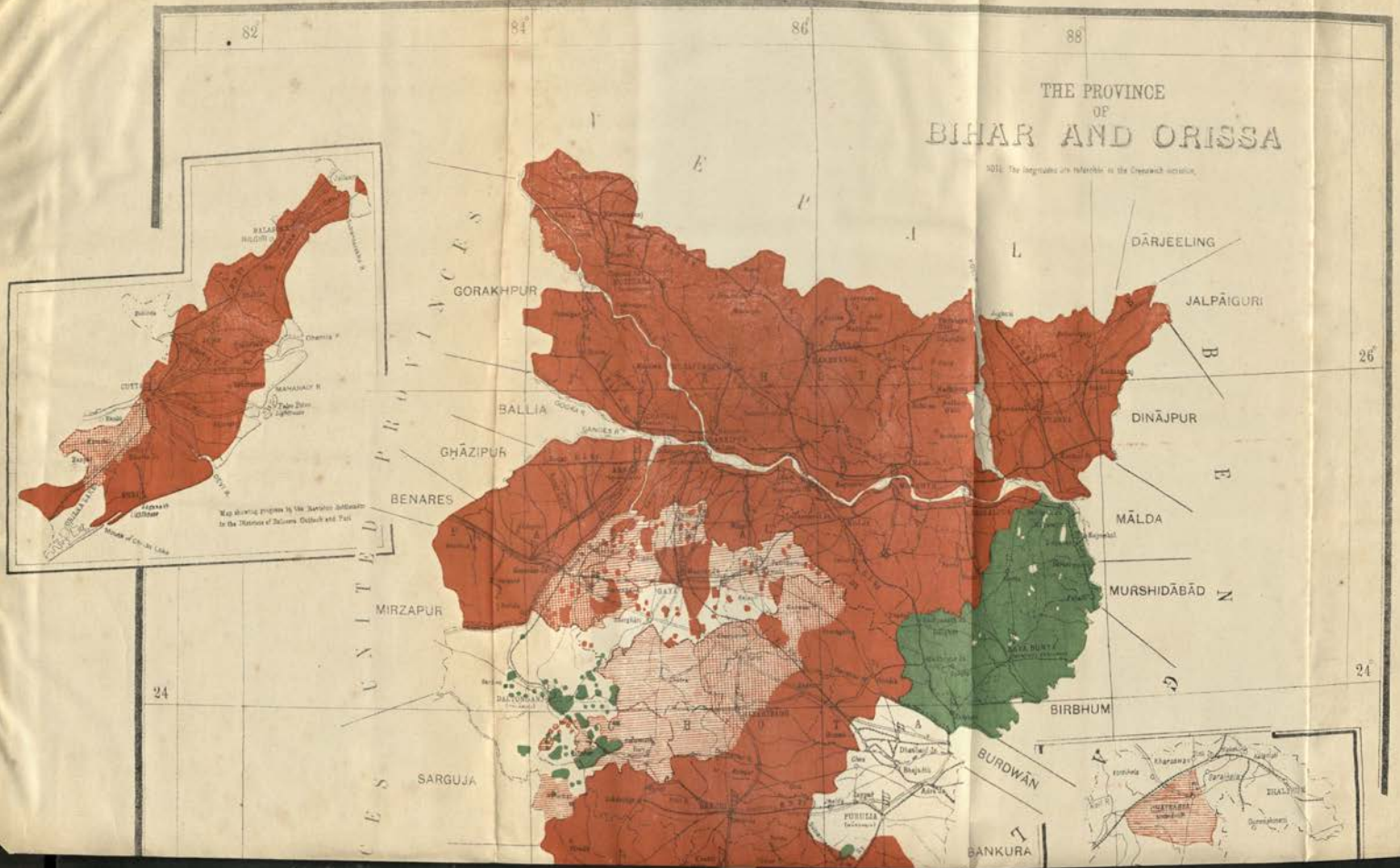
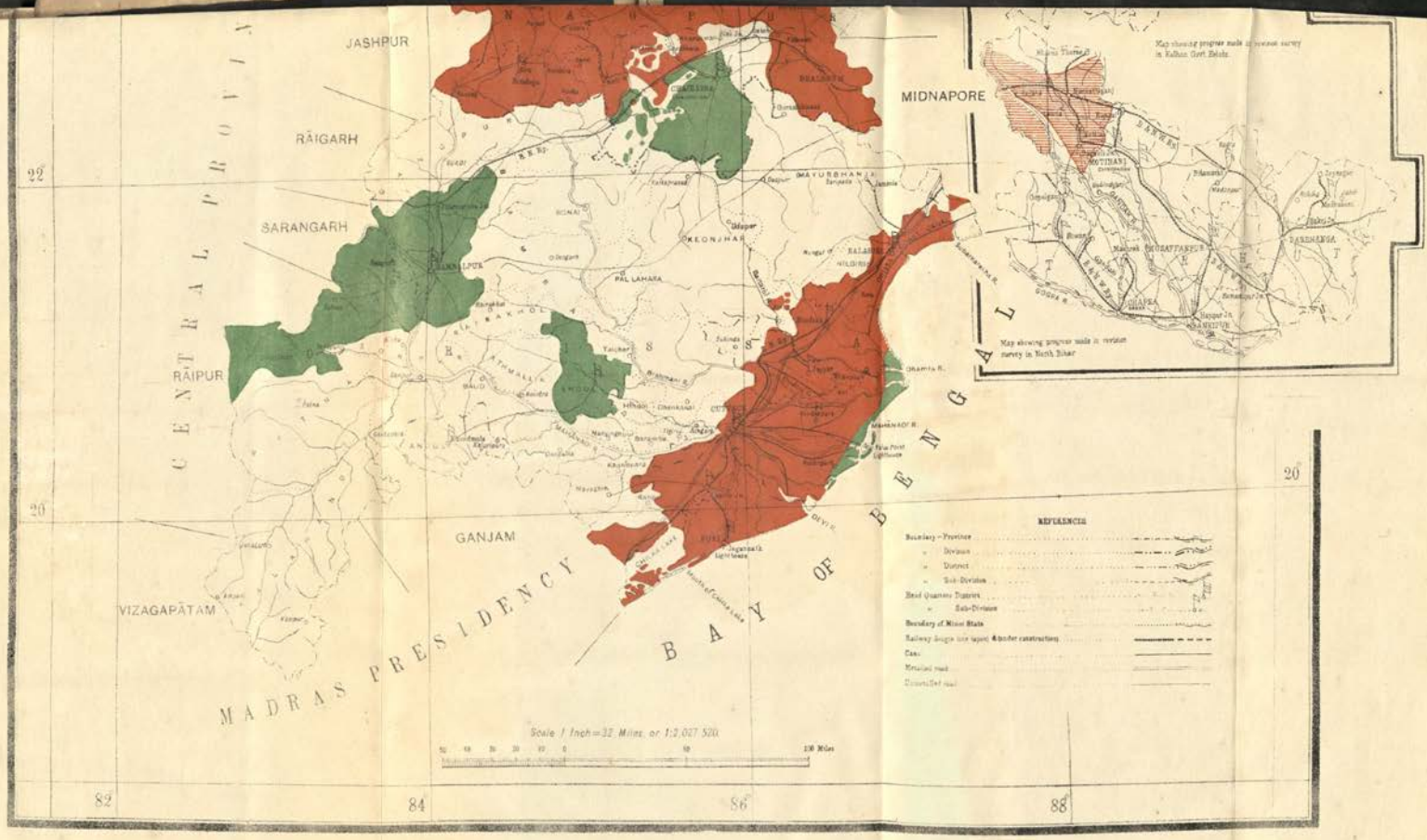
„ „ „ Survey Work, Traverse and Cadastral.

SETTLEMENT MAP




JASHPUR
RĀIGARH
SARANGARH
RĀIPUR
GANJAM
VIZAGAPĀTAM
MIDNAPORE
CENTRAL PROVINCES
MADRAS PRESIDENCY
BAY OF BENGAL
KEONJHAR
PAL LAHARA
MAYURBHANJA
CUTTACK
PURI
Jagannath Light house
Mouth of Chilka Lake
Chilka Lake
Dhamra R.
Mahanadi R.
Palm Point Lighthouse
Devi R.
Scale 1 Inch = 32 Miles, or 1:2,027,520
100 Miles
22
20
82
84
86
88
REFERENCES
Boundary – Province
" Division
" District
" Sub-Division
Head Quarters Districts
" Sub-Division
Boundary of Minor State
Railway Single line (open & under construction)
Canal
Metalled road
Unmetalled road
Map showing progress made in revision survey in Kalhan Govt. Estate.
Map showing progress made in revision survey in North Bihar
MOTIHARI
MUZAFFARPUR
DARBHANGA
CHAPRA
SAMASTIPUR
Area the records of which were finally published under the Bengal and Chota Nagpur Tenancy Acts prior to the year ending 30th September 1914
Area the records of which have been finally published or completed under the Bengal and Chota Nagpur Tenancy Acts during the year ending 30th September 1914
Area in which the preparation of settlement records under the Bengal and Chota Nagpur Tenancy Acts was in progress but not completed during the year ending 30th September 1914
Area the records of which were finally published under other laws prior to the year ending 30th September 1914

DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

No. 7640.

FROM

J. REID, Esq., I.C.S.,

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA,

To

THE SECRETARY TO THE BOARD OF REVENUE, BIHAR AND ORISSA, LAND REVENUE DEPARTMENT.

Dated Ranchi, the 15th December, 1914.

SIR,

I HAVE the honour to submit the following Report on the Survey and Settlement operations conducted under the supervision of this Department during the year ending the 30th September, 1914.

PART I.—CADASTRAL SURVEYS AND SETTLEMENTS.

CHAPTER I.—GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operations.

2. Survey and Settlement operations were in progress during the year in 11 districts of the Province. The area cadastrally surveyed during the year was 4,946 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 5,828 square miles, attested in 4,052 square miles, and finally published in 3,950 square miles. The rents of tenants 29,973 were settled. The expenditure of the year amounted to Rs. 8,83,194.

Total area settled in the Province up to 30th September, 1914.

3. The total area for which a record-of-rights has now been completed under the control of the Department is 65,296 square miles. Of this, 3,590 square miles were completed during the year under report. Progress during the last twenty-eight years has averaged 2,332 square miles a year.

Future Programme.

4. A scheme for the preparation of new maps and records of Sambalpur district through the agency of the Patwaris was submitted and has been approved by the Local Government.

Settlement Staff.

5. The largest number of Settlement Officers employed during the field season was five against four in the preceding year. Of these, three were Civilian officers employed in the major settlements in South Bihar, North Bihar and Chota Nagpur, and the fourth and fifth were Deputy Collectors employed in the Khurda Government Estate and Land Records Maintenance in Orissa. The largest number of Assistant Settlement Officers employed during the year was 82 against 77 in the previous year. The eighty-two officers consisted of 5 Civilians, 24 Deputy Collectors, 40 Sub-Deputy Collectors, one professional adviser, 6 Munsifs and 6 non-gazetted officers, one of whom, Pandit Birinchi Jha, was subsequently made a Probationary Sub-Deputy Collector: 41 or half the number of Assistant Settlement Officers were employed in South Bihar, 7 in North Bihar, 28 in Chota Nagpur, and 6 in Orissa; one was employed as Superintendent of Land Records in the district of Sambalpur.

Training of Junior Civilians and Police Officers.

6. Proposals to depute Junior Civilians and Assistant Superintendents of Police for a period of 5½ months, in order that they might undergo a more complete course of training, were accepted by the Local Government. Five Junior Civilians and three Assistant Superintendents of Police were deputed to undergo training in Survey and Settlement. Four officers, *viz.*, Messrs. Evans, Lewis and Elmes of the Indian Civil Service and Mr. Statham of the Indian Police underwent training in Gaya, while Messrs. King and Swanzy, Junior Civilians, and Messrs. Cumming and Murray of the Indian Police were trained in Chota Nagpur. All the officers appear to have derived benefit from the more complete course of training. Four of them were placed temporarily in charge of Cadastral circles, and two Police Officers, Messrs. Cumming and Murray, who were in charge of circles until the completion of the programme in Palamau, are reported to have controlled their staff and organized the work most efficiently.

Training of Munsifs.

7. As reported last year, of the three Munsifs deputed in October, 1912, two, who were found unsuitable, reverted to the Judicial Service after a few months' training. The third Munsif completed the prescribed term of eighteen months' training. In October, 1913, the services of five Munsifs were placed at the disposal of the Department. Two of these, however, were found unsuitable, and their services were dispensed with.

Training of District Kanungos.

8. Four district Kanungos from the two divisions of Bhagalpur and Orissa received training in Survey and Settlement work.

Final reports.

9. The final reports of the Orissa Revision Settlement and of the Survey and Settlement operations in South Monghyr, the Manoharpur tenure (Singhbhum) and in the Bishunpur Estate in Cuttack, were reviewed and submitted to the Board. The final reports of the operations in the Patna district and of the re-settlement of the Khurda Government Estate in Puri were received during the year and are now passing through the press.

Maintenance of thana lists and maps.

10. Nine proposals for alterations in the jurisdiction of thanas and police stations were received during the year for examination. The jurisdiction notifications issued were eleven in number.

Departmental rules.

11. The following rules were issued: South Bihar Attestation Rules (revised edition); North Bihar Revision Cadastral Rules (approved in the Board's letter No. 17-140-2, dated the 7th November, 1913); and Rules for the training of Junior Civilians and Assistant and Deputy Superintendents of Police (revised).

Cess Revaluation.

12. In Hazaribagh a Cess Revaluation Roll was prepared under Chapter IIA of the Bengal Cess Act *pari passu* with the attestation of the settlement records as in the previous year. The expenditure incurred during the last two seasons in an area of 3,594 square miles was Rs. 7,709, or Rs. 2·14 per square mile.

Orissa Tenancy Act.

13. Rules framed by the Local Government under sections 191 and 245 of the Orissa Tenancy Act (Bihar and Orissa Act II of 1913), were published in Notification No. $\frac{2202R.}{IIT-2}$, dated 23rd March, 1914, and rules relating to the course of appeals from orders of Revenue Officers in commutation proceedings under section 47 of the Orissa Tenancy Act were published in Notification No. $\frac{4718R.}{IIT-2}$, dated 25th May, 1914.

Bengal Tenancy Act.

14. Rule 43 of the Government Rules under the Bengal Tenancy Act was amended and a revised rule was published in draft Notification No. $\frac{7366R.}{IIT-48}$, dated 22nd September, 1914. The rule was subsequently confirmed in Notification No. $\frac{8193R.}{IIT-48}$, dated 4th November, 1914.

15. Extracts from the annual reports received from the District Officers continue to confirm the opinions expressed in previous years about the utility of the Survey and Settlement records in almost all branches of administration. In criminal cases concerning land, in civil suits for arrears of rent and possession, in partition and land acquisition proceedings, in certificate cases, in preparing sketches of the scenes of crime, in making Chaukidari assessments, and in almost every branch of revenue work, the records, it is reported, have been constantly consulted and utilized.

Utilization of Land Records.

CHAPTER II.—SETTLEMENT OF LAND REVENUE.

KHURDA GOVERNMENT ESTATE IN PURI.

[*See* Appendices I and II.]

Area, 883 *square miles*; 1,378 *villages*; 2,18,430 *tenants*; 8,29,130 *plots*.

16. *Completion of operations.*—The operations were closed by the end of February and the Settlement Officer, Babu Sudarshan Das, Deputy Collector, who was the only officer in charge during the year, submitted the final report on the operations. The records have been deposited in the Sub-divisional record-room.

17. *Cost.*—A sum of Rs. 27,893 was spent during the year. The total expenditure on the operations comes to Rs. 80,228, against an estimated expenditure of Rs. 93,000; the incidence of the cost rate thus works out at Rs. 91 per square mile, or As. 2-3 pies per acre.

The operations have resulted in a net increase of land revenue amounting to Rs. 36,100. The cost of the operations will, therefore, be recouped in a little over two years.

CHAPTER III.—PERMANENTLY SETTLED ESTATES.

BIHAR SETTLEMENT.

[*See* Appendices I to IV.]

18. *Staff and extent of operations.*—Mr. E. L. Tanner, I.C.S., was Settlement Officer, except for the period 13th April to 9th September, during which Mr. A. B. Duncan, I.C.S., officiated. Mr. Duncan and Mr. W. H. Boyce, I.C.S., were in charge of the attestation camps during the field season in Gaya district. Three Deputy Collectors were successively employed on rent-settlement and recovery operations in Shahabad district. The numbers of Assistant Settlement Officers employed during the field season and recess were 46 and 22 respectively. Of the Assistant Settlement Officers employed during the field season (January), 6 were Civilians, 13 Deputy Collectors, 21 Sub-Deputy Collectors, 4 Munsifs, 1 Assistant Superintendent of Police and 1 non-gazetted officer.

GAYA DISTRICT.

CADASTRAL SURVEY AND RECORD-WRITING.

Area, 4,661 *square miles.*

19. *Programme and progress.*—The year's programme consisted of the cadastral survey and khanapuri of 1598·31 square miles in thanas Jahanabad, Tikari, Atri, Nawadah, and Pakribarwan, including a hill area of 113 square miles. The whole programme was completed. In addition, 12 villages appertaining to the Government estates, which had been previously surveyed but were excluded from the scope of the operations, were topographically surveyed.

20. *Abandonment of revisional survey and record-writing in previously surveyed areas in the district.*—The villages appertaining to the Government Estates, the Belkhara Mahal, the Tikari estate, the Deo estate and the Maksudpur estate had been previously surveyed between the years 1893-1904. According to the original scheme, the maps and records of the villages belong-

ing to the last four zamindari estates that fell in thanas Nabinagar, Aurangabad, Daudnagar, and Arwal, had been revised in the previous year. As noted in paragraphs 63 and 65 of last year's Report, owing to the scattered nature of the areas and other causes, revision operations proved nearly as costly as the preparation of a *de novo* map and record. As the original maps were not suitable for direct reproduction by the Vandyke process it was necessary to prepare traces. The process of tracing was found to be not only tedious and costly, but a fruitful source of error. It was decided, therefore, with the sanction of the Board of Revenue communicated with its letter No. 17-133-4, dated 7th August, 1913, to discard the revisional scheme and to prepare a new map and record in the remaining areas in which revision operations had been contemplated.

21. *Cadastral Survey and Khanapuri.*—The detailed survey was checked by 3·77 linear miles of *partal* per square mile, in addition to a block *partal* of 378 acres in village sites and 102 linear miles of independent survey of the outer boundary. The average number of fields to the square mile rose to 1,635. The incidence ranged between 2,017 to the square mile in thana Jahanabad to 857 in the hilly tract to the south-east of Nawadah: 13·40 per cent. of the plots were checked. The check of survey and record-writing was adequate.

22. *Modification in areas of Revenue Survey villages.*—A number of small Revenue Survey villages were amalgamated with adjacent villages subject to the Board's approval. One village, which had an area of over 74 square miles and consisted of 52 tolas, was subdivided into twelve new villages, existing tola boundaries and natural marks being followed as far as possible.

23. *Disputes.*—The incidence of boundary disputes in the year's area was one dispute to every 2·5 square miles, practically the same as in the previous year. Internal disputes averaged 39 to the square mile, or one dispute to every 41 plots. As in the previous year, the disputes about the system of rent in kind were common.

24. *Miscellaneous.*—The system of surveying accurately in position fixed objects as starting points to be used in future revision surveys was introduced, with the object of obviating the recurrence of the difficulties which have been experienced in North Bihar.

"Adopted" stations.

25. *Cost rates.*—The net cost rate of cadastral survey and record-writing worked out at Rs. 171 per square mile against Rs. 151 per square mile, the cost rate for the previous year's area. Taking into account the large increase in the number of plots to the square mile, which is the highest yet reached in South Bihar, with the exception of Patna, and the incidence of disputes, the cost rate is not high and compares favourably with the cost rate of similar areas previously dealt with. The cost rate for Patna, with 1,754 plots to the square mile, was Rs. 232 per square mile. The total cadastral cost-rate may be distributed as follows: Detailed survey, Rs. 69; khanapuri, Rs. 46; completion of maps, Rs. 7; area computing, Rs. 10; completion of records and statistics, Rs. 37.

SETTLEMENT.

26. *Programme and progress.*—The area under attestation was 1404·43 square miles containing 1,682,510 plots, situated in thanas Arwal, Daudnagar, Aurangabad, and Nabinagar.

27. *Rent disputes.*—There were large numbers of disputes in the Belkhara Mahal, which had been previously surveyed in 1893-97. One set of disputes arose out of the fact that the area of plots found at the previous survey differed from the area shown in the landlord's books of account. In cases where the survey area was greater, the rent was increased by the proprietor. This, of course, was generally illegal, as the measurements in most cases referred to exactly the same land, the difference arising from the different systems of measurement. Increased rents on the ground of improvements were also claimed.

In village Keal the disputes were found to be abnormal. The landlord who had purchased the village some years ago, has been unable to realize any rents. The raiyats, it was found, used to divide the crops and contribute a half share to a

fund administered by the head raiyat for the purpose of contesting cases in the Courts. There was a general dispute as to the system of rent, the landlord claiming *danabandi** and the raiyats cash rent. No reliable evidence as to actual payments were, however, forthcoming, and all that was definitely proved was that in certain rent suits the landlord had obtained some decrees for rent on the *danabandi* system. The documents produced by each side had, without exception, been disbelieved at some time or other during the course of litigation. The Sub-divisional Officer of Jahanabad had tried to get the parties to agree but without success. In these circumstances, it was not easy to arrive at a right conclusion, but the position now is that both parties are agreeable to have a cash rent fixed, although they cannot agree as to the rate. During the coming harvest, the Settlement Officer intends to have extensive crop cutting experiments made with a view to arriving at a fair rate for the village. The raiyats have agreed as to the ratios of the rents of different holdings, so that, once the fair rate is fixed, it will be possible to propose rents which the parties may accept under section 109-C.

In the estate of Babu Indardeo Narayan of Chandragarh, the raiyats had claimed from the time of khanapuri that they held a portion of their holdings on permanent cash rent. The landlord denied that any system of rent prevailed in his villages except produce-rent of the *danabandi* species. The estate had been under the Court of Wards for a few years prior to 1903; but no documents relating to these periods were forthcoming. The papers produced by the landlord were suspicious and, even if believed, did not preclude the possibility that there were some cash-paying lands in each holding. Several attempts were made to bring about a compromise between the parties, but the landlord declined to refer the dispute to arbitration, and it was clear that no satisfactory solution of the dispute was possible which did not also settle the question of arrears. Several suits were brought by the landlord against the principal tenants claiming what were proved to be fictitious amounts of arrears, but these were mostly compromised. Mr. Duncan attempted to effect a compromise ; but the landlord, though agreeing at first to accept his decision, refused at the last moment to do so.

28. *Proceedings under section* 58, *Bengal Tenancy Act.*—In the worst cases, proceedings were taken under this section. Sixty-seven cases were forwarded to the Collector, of which 59 ended in conviction. In five cases the accused were warned, while in three cases the result has not yet been communicated. The aggregate of fines imposed was Rs. 1,446.

29. *Status.*—The status of certain *digwars*, who occupy lands on the Barun-Bihta road, was the subject of some discussion. The lands are generally held free of rent in return for guarding the road. The tenures, according to local tradition, dated from the time of the Mughal empire. The first difficulty was to discover whether these lands had been included in neighbouring estates at the time of the Permanent Settlement, or not; in most cases, it was found that they had been so included. In some cases, the lands had been sold in execution of Civil Court decrees; in others, they had been simply annexed by local zamindars, who let them out on rent, while they pay men to perform the nominal duties attached to the post. Wherever possible, the *digwars* were recorded with the status of *jagir digwari*, and the facts of each case, having been ascertained, the matter has been referred to the Collector.

Another question of status that gave rise to some difficulties occurred in the Belkhara Mahal. This estate was previously surveyed in 1893-7 and in several of the villages, of which the Arwal Factory were *mukarraridars*, the proprietor of the Factory had acquired by purchase some occupancy holdings in auction sales in execution of rent decrees. At the previous settlement, it was proposed to record him as a proprietor and to give the persons actually cultivating the lands the status of raiyats. The question was referred to the Advocate-General, who, on the authority of the ruling of the High Court in *Jawadul Haq* vs. *Ram Das Sahu*, I. L. R., 24 Cal. 143, advised that Mr. Solano, the proprietor of the factory, should be recorded as a non-occupancy raiyat, the actual cultivators being recorded as under-raiyats. The Bengal Tenancy Act has, however, been since amended, and it was proposed to re-open the question, which had been decided in conformity with the Advocate-General's opinion.

*Assessment by appraisement of the crop before it is cut.

It was held, that the alteration in the Act could have no retrospective effect, and the previous entries in the record were, therefore, maintained. The under-raiyats, however, claimed occupancy rights in their tenancies and were able to prove their claims in numerous cases. In the case of holdings purchased by the factory since the previous settlement, the actual cultivators were recorded as raiyats.

30. *Produce-rents.*—The most common form of disputes was undoubtedly the system of produce-rent. The landlords usually claimed that produce-rent was realized after appraisement (*danabandi*), while the raiyats asserted that rent was paid by dividing the crop on the threshing floor (*batai*).* The reasons and merits of these disputes are too well known to require repetition. Some variations of the ordinary forms were, however, met with during the year. It is a common practice that, when a village is let on a temporary lease, the crop is divided between the landlord and his tenants whatever may have been the system when the village was under direct management. When the village again comes under direct management, the custom is to revert to the old system. In some cases, the raiyats objected to the reversion to the appraisement (*danabandi*) system and insisted on the retention of *batai*. In one case referred, the Board of Revenue, after consulting the Legal Remembrancer, expressed the opinion that a proprietor could not be bound by the action of a temporary lease-holder in changing the system of rent.

In the villages of the nine-anna Tikari Estate, the subject of "Chakat" rents was a fruitful source of disputes. The word "Chakat" as used in the record-of-rights previously prepared ordinarily connotes a produce-rent that has been commuted to cash for a definite or indefinite period. The question however, was left in an unsatisfactory condition, as the special conditions of this form of temporary arrangement were nowhere clearly defined in the record. The term *chakat* is commonly used in the district to denote any form of money-rent, other than one fixed in perpetuity. It has now been given a definite meaning and its incidents have been fully recorded.

In many cases, the presumption that the commutation was of a temporary nature was seriously assailed: in some, the *chakat* rent was found to have been amalgamated with an admittedly permanent cash-rent; in others, it was found that suits had been brought to enhance the cash rent, while in others, again the receipts granted by the landlord showed that it had come to be regarded as a money rent; in nearly all cases, the system of payment in cash had been continued for the last twenty years.

Where the presumption of correctness raised by the previous record was successfully rebutted, the rents were altered to cash rents. Some objections were at first filed against the alterations; but, it was finally admitted that the rent attested in all the cases to which objections had been taken were permanent commuted cash rents, and that the entries of *chakat* concerning them in the previous record-of-rights were incorrect.

31. *Statistics of sales and mortgages.*—(*a*) Sale: 539 proprietary sales were brought to notice. In 66·6 per cent. of cases, landlords were purchasers, while in 22·8 per cent. the raiyats purchased the proprietary rights. The number of purchases made by money lenders and lawyers was insignificant. The prices paid are equivalent to 138 times the land revenue transferred, which is a clear indication that the State demand is very light. Sales of occupancy holdings recorded numbered 1,542, covering an area of 3,109 acres. In case of entire holdings, the average selling price was Rs. 40-13 per acre, while part holdings fetched Rs. 42-1 per acre. The number of part holdings sold is more than double the number of entire holdings transferred.

(*b*) Mortgages:—The mortgages recorded covered about 8,668 acres, including mortgages of landlords' khas lands as well as mortgages of raiyati holdings. The amount advanced was Rs. 42 per acre.

The Settlement Officer (Mr. Tanner) has discussed the salient features of the statistics of sales and mortgages as follows: "There is a great tendency to conceal the fact of sales having taken place. Whether this is due to any

*Equal division of crops between landlord and tenant after portion of expenses of cultivation has been paid.

action of the landlord or a fear that some form of tax may be levied on the transaction is not clear. The rates of the reported sales and mortgages vary greatly from village to village and within the same village, and, as will be seen, the rate for mortgages is about equal to that for sales. This may be partly due to the fact that in estates where the custom of transferability is denied, or a *salami* is exacted for mutation of names, mortgages replace sales, although this cannot be the whole explanation, because in some villages of the Tikari Estate and others, where mutation is freely allowed, the mortgage rate exceeds the sale rate. An important cause is that landlord's khas land, which is never sold but often mortgaged, fetches a far higher rate than other lands in the village. There are several reasons for this: (1) Landlords' khas land (*bakasht*) is usually the best in the village; (2) A mortgagee of *bakasht* land is regarded as a quasi-proprietor by the village and is willing to pay for this honour; (3) In most cases the trees on *bakasht* land are included in the mortgage, which is not the case in ordinary mortgages; (4) The position of a mortgagee of *bakasht* land is more secure than that of a mortgagee of raiyati land, as the land cannot be sold for arrears of rent; and (5) The mortgagee of *bakasht* land pays no rent. It is also found that, in many cases of sales, the raiyat usually disposes of his worst lands, whereas in the case of mortgage, the raiyat, being optimistic about redemption, is not restricted in this way. For these reasons, we might expect to find that even after *bakasht* lands were omitted, the mortgage rate would not be much less than the sale rate.

As an illustration, the figures of one of the attestation camps may be taken: The average rate for sale is Rs. 77 per acre, whereas the average mortgage rate is Rs. 91. Of the lands mortgaged, totalling 723 acres, 104 acres are *bakasht* lands, which were mortgaged at a rate of Rs. 171 per acre. Omitting these, the mortgage rate of the balance is Rs. 77 per acre; or exactly the same as the sale rate.

32. *Irrigation Records.*—The system of irrigation plays an important part in the agricultural economy of Gaya, and is, therefore, the fruitful source of disputes and fatal affrays. A complete record of irrigation rights has been prepared. For every irrigation scheme affecting more than one village, a record was drawn up showing how the scheme originated, the names of the persons responsible for the upkeep of the works and the rights and duties of the various villages included in the system, while, for each village, a separate record was prepared showing the method of distribution of the water within the village, and giving, in full detail, the sources of irrigation, etc. The preparation of these records gave a good deal of trouble and disputes were numerous, but it is hoped that they will prove of great utility in district administration. It was impossible to foresee every question that might arise; but the forms used, which have been improved as a result of the year's experience, have been drawn up so as to give judicial officers as much assistance as possible in all cases of dispute.

33. A feature of the programme of work in the Gaya Settlement was the large scale on which crop-cutting experiments were made, with a view to the preparation of Cess Revaluation rolls, and to enable the Courts to arrive at accurate conclusions as to the outturn of the various crops. The triangle invented by Mr. Hubback for the purpose was adopted as the basis of the experiments: the triangle, which is equilateral, consists of wooden sides easily set up and containing 1-1600th of an acre. The crop standing inside the triangle forms a small bundle, and for every two tolas of grain found when threshed, the outturn is a maund an acre. Six to eight experiments can be made in an hour, and by making more than one experiment in the same field, errors are, to a great extent, eliminated. The number of experiments made during the year was 4,307. An attempt was made to summarize the results, and deduce some general conclusions, which would economize the labour at present involved in commuting produce rents under section 40, Bengal Tenancy Act, and in preparing Cess Revaluation rolls. This involved soil classification, which was done roughly according to the local name of the soil. Assistant Settlement Officers made enquiries as to the proportionate outturn of the various soils, and on the basis of this and the results of the experiments, it was hoped that it might be

possible to sub-divide the area into tracts with a more or less uniform outturn for each class of soil. This expectation was not fulfilled, as it was found impossible to block out such tracts. Average outturns for thanas were, however, worked out.

Shahabad District.

Area, 4,194 *square miles* ; 6,025 *villages* ; 605,497 *tenants* ; 3,718,817 *plots*.

34. *Programme and progress.*—The programme comprised the decision of suits and applications under sections 104, 105, 106 and 40 of the Bengal Tenancy Act and recovery of costs. The programme in the northern thanas of the district was completed and that of the southern thanas commenced. Proposals for settlement of fair rents under section 104 for all villages of thana Kharghar, the majority of villages of thana Mohania, and for all the 59 villages of the southern thanas, embracing 3,352 tenancies, were submitted. One thousand, one hundred and sixty-nine objections under section 104E were instituted, of which 1,002 were disposed of. The resulting enhancement of rent was 16·1 per cent. The rent-rolls of only two villages remained to be draft published at the end of the year. The rent-rolls of 73 villages containing 3,927 tenancies have been confirmed, leaving a balance of 19 villages for confirmation.

The number of suits and applications disposed of under sections 105 and 106 was 1,855 and 728, respectively; 2,218 applications for commutation of produce rents under section 40, concerning 1,423 holdings and covering an area of 7,260 acres, were disposed of. The incidence of the commuted rent worked out at Rs. 7-5-6 per acre.

35. *Features of rent settlement in Government and temporarily-settled estates.*—Rents were generally enhanced under section 30(*b*) on the ground of rise in prices in the villages of the southern thanas, except in the case of six villages in which rents were enhanced under section 31(*f*).

As was foreseen, the revenue settled for the district has slightly decreased. This is due to the fact that the bulk of the rent settlement lay in pargana Chausa in Buxar, where, in no less than 71 of the estates, the assets were found to have decreased, while in those estates in which the assets had increased, the percentage assesed as revenue was reduced. The ruling percentage of assets formerly taken as land revenue in Chausa pargana was 70 per cent. This percentage was considered too high, and the consequent reduction of the percentage to a level ranging between 55 and 66 per cent. has necessarily resulted in a slight decrease of revenue.

36. *Features of settlement of rents in zamindari areas.*—As stated in paragraph 34 above 1,855 applications, involving 15,950 tenancies, were disposed of. Large numbers of cases appertaining to thana Bhabhua were withdrawn, as the enhancement permissible under section 30(*b*) was found to vary between three pies and one anna in the rupee, an amount too inconsiderable to warrant the expense entailed. Taking the total figures for the district, the average enhancement allowed was ·86 per cent. or about one anna three pies in the rupee.

37. Detailed instructions were issued to officers dealing with applications for commutation of produce rents under section 40 in order to ensure that, as required by law, some estimate of the average realizations should be made as the basis of fixing the commuted rent. The procedure followed in certain classes of commutation cases required considerable amendment. It had been the practice, apparently, in commuting produce rents, whenever the landlord could not produce satisfactory accounts, to fix cash rents for the lands at the village rates, ignoring altogether the incidence of the produce rent and its cash value. The law, however, prescribes that the Court shall have regard to this item; it is, in fact, the most important item, and the failure to take it into account is not excused by the landlord's failure to prove the actual amounts received by him. If the landlord fails, there are obvious expedients. The Court may estimate the produce on the results of crop-cutting experiments, or take evidence with that object. It is hopeless to fix the amounts with scientific accuracy; but it is easy enough to arrive at

rough approximations, which is all that can be expected when the landlord's accounts are proved to be unreliable. The obvious course is, then, unless the circumstances are exceptional, to adhere to the usual method, *viz.*, take the mean between the value of the produce payable and the rent which would be leviable, if the lands were assessed at village rates.

38. *Recovery.*—Out of the total demand of Rs. 6,00,014, Rs. 5,59,073 was collected, leaving an outstanding balance of Rs. 40,941. Computation and recovery remain to be made in respect of a number of villages in the southern thanas, the records of which have not yet been finally published, owing to pendency of proceedings under section 104.

SOUTH MONGHYR.

Area, 2,285 *square miles ;* 2,018 *villages ;* 318,887 *holdings ;* 2,102,305 *plots.*

39. *Conclusion of operations.*—In connection with the settlement of Babu Sukhan Singh's villages under section 112 of the Bengal Tenancy Act mentioned in paragraph 42 of last year's report, the lands of the villages were classified and rents fixed so as to bring the average commuted rent of each village to the standard fixed by the Board of Revenue.

40. *Area under Settlement.*—Some readjustment of the area dealt with was necessitated by the exclusion of one village (Dhonrha) by Notification No. $\frac{7411R.}{III-19}$, dated 8th November, 1913. On the other hand, another village (Ajan Pokhar), which had been wrongly included in Gaya and traversed with a village of that district, is now being surveyed. Its area will be added to that of Monghyr district after the records have been finally published.

CHOTA NAGPUR SETTLEMENT.

41. *Staff and extent of operations.*—Cadastral Survey and Settlement operations were in progress in the districts of Hazaribagh, Palamau, Manbhum, and Singhbhum. Mr. J. F. W. James, I.C.S., officiated as Settlement Officer till 14th October, when he made over charge to Mr. J. D. Sifton, I.C.S., who continued in that capacity for the rest of the year, excepting for a period of one month and twenty days, when Mr. W. H. Boyce, I.C.S., officiated in his place.

In Hazaribagh, Mr. T. W. Bridge, I.C.S., was in charge of two attestation camps. Seven Assistant Settlement Officers were employed on attestation and disposal of objections under sections 83 (1) and 111 (6) of the Chota Nagpur Tenancy Act, and two Assistant Settlement Officers were in charge of final publication camps. One Assistant Settlement Officer was employed at head-quarters.

Throughout the field season the survey and khanapuri operations in Palamau were in charge of Mr. Bridge, who reverted to district duty on the 4th April. Mr. Boyce joined on the 13th of that month and remained in charge of recess work till the 21st July. Eleven officers were employed in supervising Cadastral Survey and Khanapuri and one officer at the Cadastral head-quarters. During recess, the Kolhan (Singhbhum) and Palamau Cadastral staffs were amalgamated and worked together at Ranchi under one officer.

Mr. A. D. Tuckey, I.C.S., was in charge of Survey and Khanapuri work in the Kolhan Government Estate in Singhbhum during the field season. He reverted to general duty on the 3rd May, but resumed charge of recess work at Ranchi on the 23rd July. Four officers were employed in supervising Cadastral Survey and Khanapuri and one officer at the Cadastral head-quarters.

As usual, the number of Assistant Settlement Officers employed fluctuated from time to time, rising from 15 at the beginning of the field season to 25 in April. The staff at this latter date included 2 Civilians, 8 Deputy Collectors, 11 Sub-Deputy Collectors, 1 Munsif, 2 Assistant Superintendents of Police, and 1 non-gazetted officer.

HAZARIBAGH DISTRICT.

Area, 6,906 *square miles ;* 7,009 *villages ;* 337,097 *holdings ;* 5,407,472 *plots.*

42. *Programme.*—The programme of the year consisted of :—

(*i*) Attestation, draft publication and cess revaluation of 1,713 square miles ;

(*ii*) Case work under sections 83(1) and 111(6) of the Chota Nagpur Tenancy Act, in the area under attestation;

(*iii*) Settlement recess work of the attested area;

(*iv*) Final publication of the record-of-rights in 1,855 square miles (third season's area);

(*v*) Computation of costs of the settlement operations from the records of 1,855 square miles; and

(*vi*) Suits under sections 87 and 130 and settlement of fair rents under section 85 of the Chota Nagpur Tenancy Act in an area of 1,806 square miles in Giridih Sub-division, and in 1,855 square miles in the Sadr Sub-division.

The whole programme was completed before the end of September, with the exception of a small balance of settlement recess work, which has been completed since the close of the year, and of the suits after final publication. Fair rent settlement was started in Giridih, but no further progress can be made until after the hearing of the second appeals in the earliest cases.

43. *Status.*—The number of raiyats recorded as having *khuntkatti* rights was 341 or ·61 per cent. of the total. The number of raiyats having occupancy rights amounted to 45,466, of whom 38,309 were settled raiyats. The number of the non-occupancy raiyats recorded was only 1,231 or 2·21 per cent. of the total.

44. "*Rent.*—The average rates of rent per acre of rice land prevailing in the area under attestation varied from As. 6-4 to Re. 1-5-6 for *khuntkatti* raiyats; Re. 1-1-1 to Rs. 2-11-6 for settled raiyats; and Re. 1-1-3 to Rs. 2-11-3 for occupancy raiyats."

45. *Objections under sections* 83 (1) *and* 111 (6) *of the Chota Nagpur Tenancy Act.*—The number of objections under sections 83 (1) and 111 (6) of the Chota Nagpur Tenancy Act were 4,207 and 110, respectively. They were all disposed of by the end of August by selected officers.

46. *Commutation of Produce Rents.*—The number of applications filed during the year for commutation of produce rents under section 61 of the Chota Nagpur Tenancy Act was 1,014. Besides, 109 cases were pending from the previous year making a total of 1,123, of which 1,053 have been disposed of.

47. *Landlords' Privileged Lands.*—The total area recorded as landlords, privileged lands at attestation amounted to 569·65 acres of rice lands and 353·75 acres of upland, or ·04 per cent. of the cultivated area. The area recorded last year was 2,068 acres of rice land, and 1,358 acres of upland, or 1·01 per cent. of the whole cultivated area. The number of tenancies recorded as *zirat* was 81. The custom of landlords' privileged lands was found to be non-existent throughout most of the area dealt with during the year.

48. *Rent Receipts.*—Ninety-nine cases of failure to give proper rent receipts were reported to the Deputy Commissioner. Fines were imposed in 60 cases, and in 6 cases the offenders were discharged with a warning In each case reported, there were several separate instances of default, and the fines imposed amounted to Rs. 3,131-14-0. The landlords of Hazaribagh appear to be unwilling to grant receipts for produce rent. The idea seems to be that lands held on this system are resumable at will, and that the grant of a receipt for rent would be tantamount to giving the tenant a right to hold them in permanency.

49. *Agrarian conditions.*—The Settlement Officer gives the following account of the agrarian conditions found to prevail in the north of Chatra: "The conditions under which the attestation of north Chatra were carried out were of the most difficult type. The landlords of this remote part of the district have acquired so absolute an ascendancy over the tenants that for several weeks the officers working there were unable to obtain any information except what the tenants were permitted by their landlords to give. The tenants refused to claim their raiyati lands: at the dictation of the landlords, they declared that their lands were in direct cultivation of the landlords and that they themselves had no connection with agriculture; they stated that their

cattle were not plough cattle but kept for draft purposes only. About rents they deposed falsely that rents recently enhanced had been paid for generations past, and they came forward in hundreds to declare that the lands recorded in their names at khanapuri had been relinquished in favour of the landlords. It was only by the exercise of the greatest patience that the attestation officers were gradually able to inspire some confidence and to infuse a more healthy spirit into the depressed tenantry. The two officers, who were especially engaged in this area, Babu Surendra Nath Sen and Lala Prem Nath Kapur, deserve the greatest credit for the work they have accomplished and the Sub-divisional Officer will have a fair prospect of enforcing law and order here as a result of the renewal of confidence in Government officers which has resulted from their labours."

50. *Final Publication.*—Final publication was carried out in two moving camps under the supervision of two experienced officers. Although villagers are at times brought from a considerable distance away for the publication of the records, it was arranged that practically no villagers were made to attend camp for more than one day. The two great advantages of this system over the system of publication at the villages by separate Kanungos are: first, the final publication officer is able to report to what extent the Settlement record is being respected after attestation, and how far the abuses brought to light at attestation have been abandoned; secondly, all doubtful points elicited during recess can be left for local enquiry by a competent officer at final publication, so that it becomes unnecessary to call in parties from distant villages to headquarters, in order to clear up doubtful entries. In the estate of one important and oppressive zamindar, the final publication officer found that the rent attested was being entirely ignored and the old illegal rents were being exacted. With the help of the Deputy Commissioner, matters were righted and the zamindar has now written up an entirely new set of jamabandis with both current demand and arrears entered at the legal rate. In the Gawan estate, where the attestation officer had rewritten the jamabandis in the previous year, it was found that the Tikait had loyally adhered to his acceptance of the new jamabandis.

51. *Suits under sections* 87 *and* 130 *of the Chota Nagpur Tenancy Act.*—The numbers of suits instituted during the year under sections 87 and 130 of the Chota Nagpur Tenancy Act were 221 and 176, respectively; 270 suits under sections 87 and 192 under section 130, together with 193 and 37 cases pending from the previous year, were disposed of. The issues raised concerned rent, title, possession, and status.

52. *Rent Settlement.*—Applications under section 85 numbered 1,702 during the year; 855 applications have been disposed of.

Palamau District.

Area to be dealt with (excluding forest blocks, etc.), 4,535 square miles.

53. *Inception of operations.*—The survey and the preparation of a record-of-rights in the Palamau district were sanctioned in the Government of India's letter No. 866-263-2, dated the 19th July, 1912, and the cadastral survey and settlement operations in thanas Balumath, Latehar, and Mahuadanr were initiated by Notification No. 4681-R., dated the 24th June, 1913, under the Chota Nagpur Tenancy Act.

54. *Programme.*—The programme consisted of the cadastral survey and preliminary record-writing (both field and recess) of 1,172 square miles, and the revision of the records of 179 square miles included in the Government estates. The first part of the programme was completed; but, the revision of the records and maps of the Government estates could not be carried through, as the original maps were found to be incapable of revision and a *de novo* cadastral survey was found to be impracticable, until a traverse survey of the area had been made. The villages have been since re-traversed, and the cadastral survey programme will be undertaken during the present field season.

55. *Cadastral survey.*—The survey was completed in about five months. The detail survey was checked by 2·05 linear miles of *partal* per square mile, out of which the check by superior agency amounted to 0·27 linear miles. Ten per cent. of the quadrilateral lines on which the detailed survey is based, were also checked on the ground. The amount of check was adequate.

56. *Khanapuri (preliminary record-writing) and internal disputes.*—The preliminary record-writing was completed by the end of April. There were 7,581 internal disputes or about six per square mile. They related chiefly to possession. The average size of a plot was 2·07 acres.

57. *Boundary disputes.*—There were 318 boundary disputes, all of which were disposed of. The number of appeals against the decisions of the lower Courts amounted to 67.

58. *Cost-rates.*—The cost-rate of cadastral survey and khanapuri worked out to Rs. 94·27 per square mile against Rs. 72·18 per square mile for the previous year's area in Hazaribagh: (*a*) detail survey, Rs. 30·07; (*b*) khanapuri, Rs. 25·56; (*c*) completion of maps, Rs. 8·94; (*d*) area computing, Rs. 10·09; and (*e*) completion of records and statistics, Rs. 19·61. The cost-rate is low and would have been considerably lower, except for the heavy initial charges, which included a sum of Rs. 19,252 on account of instruments, tents, etc.

59. *Agrarian conditions.*—It is premature to discuss the agrarian conditions of the district. The Settlement Officer, however, reports that as yet he has found no confirmation of the common saying that raiyats in Palamau do not value their raiyati right, because of the competition among landlords to get tenants to occupy their lands. On the contrary, it has been found that large numbers of landlords are now trying to oust their tenants from their holdings in order that they may be able to claim the latter as part of their own privileged lands.

MANBHUM: PARGANAS BARABHUM AND PATKUM.

934 *square miles;* 859 *villages;* 59,340 *tenants;* 629,372 *fields.*

60. *Conclusion of operations.*—Settlement operations proper were completed in the previous year. A sum of Rs. 6,526 was recovered during the year. A balance of Rs. 2,329 due by Ghatwals and petty landlords is reported to be irrecoverable and will have to be written off.

Twenty-two applications for fair rent settlement under section 85 of the Chota Nagpur Tenancy Act were disposed of. Altogether 17 appeals under sections 85 and 89 of that Act were decided.

61. Proposals for the extension of survey and settlement operations to the rest of the district were submitted since the close of the year.

CHAPTER IV.—REVISION SETTLEMENTS AND MAINTENANCE OF LAND RECORDS.

[*See* Appendices I to VIII.]

CHAMPARAN DISTRICT: THANAS BAGAHA, BETTIAH, AND SHIKARPUR.

Area, 1,720 *square miles;* 1,505 *villages.*

62. *Inception of operations.*—Revisional operations in Champaran district were sanctioned in the Government of India's letter No. 638—215-7, dated 29th August, 1913, and the revision of the record was, in accordance with the programme, undertaken in respect of all lands for which a record-of-rights had been previously prepared in thanas Bagaha, Shikarpur and Bettiah.

63. *Programme.*—The programme consisted of map correction and preliminary record-writing in respect of the area comprised in thanas Bagaha, Shikarpur, and Bettiah, with the exception of 250 square miles of hill and jungle comprised in thanas Bagaha and Shikarpur for which a record had not been prepared previously. The area set down for revision was thus 1,720 square miles with 10,92,557 fields. The whole programme was completed with the exception of 180 square miles of quasi-*diara* land bordering on the river Gandak,

in which all the landmarks and boundary marks had been obliterated by the movements of the river. The survey of this area must be preceded by a partial re-traverse, and it has accordingly been postponed till this field season.

64. *Staff.*—Mr. J. A. Sweeney, I.C.S., was Settlement Officer throughout the year. One Deputy Collector, three Sub-Deputy Collectors, and one non-gazetted officer were in charge of the five circles into which the area was divided. The size of the circles, the newness and extreme difficulty of the work, the inexperience of the subordinate staff, the number of disputes, and, in places, the malarious character of the climate, combined to render the programme somewhat beyond the ordinary capacity of five officers. Very strenuous efforts were therefore required to complete it.

65. *Progress.*—One thousand five hundred and forty square miles were surveyed, the total number of plots was 1,271,808 against 1,022,372 in the old record for the same area. The area of hill and jungle (250 square miles) was again excluded from the scope of the operations, as it was found that there was little cultivation within the tract.

66. *Check.*—The detail survey was checked by 3·78 linear miles per square mile. Of this, ·85 mile was ordinary or personal *partal*, 2 miles were *katan partal* (*i.e.*, *partal* in which *katans* on the line of advance are tested) and the remainder final or independent *partal*. This extensive employment of the *katan* system of check was necessitated by the fact that the testing of the preliminary records *pari passu* with the survey considerably curtails the time, of the inspecting staff, and *katan partal*, being a much more rapid process than personal *partal*, its use enabled the Settlement Officer to have all parts of the maps tested before they were passed. It has been found to be as effective as the more elaborate and slower system where, as in Champaran, field boundaries are straight and fields are not small or of intricate pattern. The total number of plots checked was 1,97,979, or 16 per cent., of the total number recorded. The percentage of check was adequate.

67. *Costs.*—The total expenditure (direct and indirect) was Rs. 1,77,633 or Rs. 115-5-0 per square mile. This cost rate is distributed as follows :—Detail survey and preliminary record-writing, Rs. 62-2-0; completion of maps, Rs. 9; area computing, Rs. 15-2-0; completion of records and statistics, Rs. 29-1-0. The rate achieved is satisfactory, considering the fact that the staff had no previous experience of this class of work and that the system of work and organization had to be developed by the Settlement Officer from the experience derived during the course of the field work. It is clear, however, that so far as the combined process of survey and record-writing is concerned, the maximum proficiency and the minimum cost rate remain to be reached; it is certain also that after the record-writing is completed all the subsequent stages of Revision settlement will be almost as costly as the corresponding stages in original operations, if the average standard of efficiency is to be maintained.

68. *Boundary disputes.*—The previous cadastral boundaries of villages were maintained in all cases. Slight errors, such as gaps and overlaps in the old survey boundaries, were corrected without dispute, and where disputes were instituted, the old boundaries were ordered to be relaid under section 45, Bengal Survey Act.

69. *Internal disputes.*—Two per cent., of the recorded plots were the subject of disputes, the average number of disputes per square mile being 16. The number is disappointingly large in view of the existing record-of-rights. The reasons assigned are: (i) private partitions or sub-divisions of tenancies since last Settlement; (ii) abandonment and subsequent claiming of holdings; (iii) fraud in transfers and confusion and doubt as to their nature; (iv) attempts of tenure-holders to evade the provisions of section 22, Bengal Tenancy Act, by acquiring raiyati lands in the names of servants and relatives; (v) attempts to set aside the old record; (vi) unsatisfactory titles of rent-free tenancies; (vii) the prevailing uncertainty as to customary rights in trees; and (viii) the usual tendencies to make vexatious claims and counter claims. In dealing with these disputes, the old record was of the greatest use. It gave certainty to decisions and defeated attempts to create cases by an elaborate chain of circumstantial falsehoods.

70. *System of map correction.*—The experience derived from the revision work in Gaya district in season 1912-13 was extremely helpful, and conclusions arrived at as the result of that experiment led to the adoption of a system in Champaran which is now proved to be both rapid and efficient. The system is briefly as follows:—

Blue prints of the former maps are given to the surveyors as the basis of their work. As in original surveys, a network of quadrilaterals is drawn on the village maps based on village trijunctions, such traverse stations as can be found and "adopted" stations fixed by the surveyor himself. Before a station is "adopted," its position is proved by measurements from at least two other fixed points. The detail survey is based on the quadrilaterals so constructed and not on single field corners or single points, the identity of which must always be uncertain, and the resurvey is, therefore, practically based on the same data as the original, that is, on a traverse basis. A *de novo* record is prepared, and fields are all renumbered.

As the work proceeds, the portions of the former map which have not changed are inked up in black, as are also new fields, the remaining portions of the map being left in blue. As blue does not reproduce, the obsolete portions of the maps disappear automatically in the reproduced copies, and the final copies are up-to-date maps of existing fields, with none of the erasures, cuttings, or corrections, which generally disfigure revised maps and which usually render them difficult to decipher save by experts. The two main factors in the success of the system are the blue prints and the "adopted" stations. If the original maps are not good, the attempt to revise them must prove infructuous. The quadrilaterals constructed before the survey is undertaken show, however, at a glance, whether the original maps are reliable or not: Isolated mistakes are detected and can be corrected; but, if the original map is seriously incorrect, a *de novo* survey is undertaken. A few such instances occurred.

The boundary marks laid down at the last cadastral survey do not appear to have been preserved by the district officers, and their absence in many places tended to delay the progress of revision and to increase the cost. New stones are being put down, which will be preserved under the existing rules: In addition, in order to obviate the recurrence of the difficulties which have been experienced, lines of adopted stations are being shown in the maps under a special symbol which, it is hoped, can be easily identified at the next resurvey. The position of these stations is fixed by accurate measurement.

71. *Landlord and tenant.*—The relations between landlords and tenants vary greatly in different zamindaris. The relations between the Bettiah Raj estate and its tenants are satisfactory. In some of the *thikadari* concerns, however, relations are strained. The disturbances of 1908 have had a disquieting effect all round, and have tended to diminish the prestige of the European zamindars. It is sufficiently clear that *abwabs* are freely levied still in the north of the Subdivision. Although receipts are granted, they are not given punctually, and the raiyats do not regard themselves as having occupancy rights in their produce-paying holdings. In these respects the old Settlement does not appear to have achieved its objects. In the litigation that has taken place since the last Settlement, both landlords and tenants have learnt the value of the record-of-rights, and, as a result, the present operations are being followed with a critical interest even by those who are not directly concerned. The keenness of the parties will, on the one hand, help towards the preparation of an accurate record, while, on the other, it will make the decision of disputed questions more tedious and difficult.

72. *Value of the old record.*—Although the old record has proved of great use in the decision of disputes, it would be wrong, however, to assume that it is not becoming obsolete. Numerous changes have occurred, due not only to the death or migration of the original holders, but to such additional causes as partitions, family subdivisions of tenancies, transfers, fluvial action, abandonment, and subsequent reclamation of whole villages, and, lastly, to two great influences that have come into existence since the old record was prepared, *viz.*, the Tribeni Canal and the railway extensions from Bettiah to Bagaha, and Narkatiaganj to Bhiknatori.

The canal supplies water to the area south of it, and its effect has been threefold. First, it has increased the quantity and improved the quality of rice produced in the north of the district; secondly, it has drawn cultivation towards it, the lands lying far from the canal and its distributaries tending to lie fallow; and thirdly, it has shifted the rice field towards the south, where irrigation is always feasible. The railway has opened out an immense export trade in rice. It has also drawn cultivation towards it at the expense of the more remote tracts. It can be readily understood, then, that these two great influences combined to change the internal detail of the old maps, and to render the old record obsolete. The records of 40 villages were scrutinized in four of the five circles, in order to see how far the occupants of lands had changed in twenty years. The following is the result:—

Number of plots in old record	...	...	22,065
Number of plots in new record	...	...	28,076
Number of plots of which occupants' names have changed per cent. of the original plots.)			13,379 (*i.e.*, over 55

The enormous numbers of changes that have occurred show how futile it would have been to have prepared copies of the old records for correction and revision, and demonstrate, in the absence of a system of maintenance of land records, the necessity of periodical revisions of survey and settlement records every 20 years, if they are to be of real use to the public, the Courts and the administration.

73. *Increase of fields.*—The number of plots in the old record of the season's area is 1,022,000. The corresponding total in the new record is 1,271,000. The increase is thus 24 per cent. It it not safe, however, to accept this figure as typical of the increase that may be expected in revisions.

It has been found that the percentage of increase in fields varies directly as the density of population. The percentage of increase in the thickly-populated area around Bettiah town rose to nearly 40 per cent., while it fell to 15 per cent. in the malarious and sparsely populated tract north of Shikarpur.

Singhbhum: The Kolhan Government Estate.

Area, 1,404 *square miles*; 911 *villages*; 1,600,000 *fields.*

74. *Programme.*—The programme of the year consisted of the cadastral survey and preliminary record-writing (field and recess) of 636 square miles.

75. *Cadastral Survey.*—The survey of the area was completed in about seven months. The detail survey was checked by 3·15 linear miles of *partal* per square mile, including ·40 linear mile of check by Assistant Settlement Officers and Kanungos. In addition, ten per cent., of the quadrilateral lines were checked on the ground. The amount of check was sufficient.

76. *Preliminary record-writing.*—The preliminary record-writing, including the decision of internal disputes, was completed by the end of May. There were only 3,134 internal disputes or about 5 to the square mile. The disputes related chiefly to possession. The average size of a plot was 0·66 acre.

77. *Cost-rates.*—The cost-rate of cadastral survey and preliminary record-writing amounted to Rs. 164·75 per square mile distributed thus: (*a*) detail survey, Rs. 50·51; (*b*) khanapuri, Rs. 60; (*c*) completion of maps, Rs. 11·85; (*d*) area computing, Rs. 14·18; and (*e*) completion of records and statistics, Rs. 28·21. Irrespective of the initial expenditure of Rs. 9,242 on tents, instruments, etc., of which a substantial portion will be recouped at the conclusion of the operations, the high cost is due to the following factors:

An attempt was made to complete the survey and preliminary record-writing by the agency of aboriginal amins recruited in Ranchi and Singhbhum. The attempt was, however, not successful and the original staff had to be supplemented. The field season was, therefore, unduly prolonged, and the cost-rate rose in proportion. Boundary marks and traverse stations do not appear to have been preserved by the local officers on any systematic plan, so that the number of fixed stations available as starting points was insufficient; it was found impossible to use "adopted" stations as in the North Bihar Survey, as the maps of the previous survey are both inaccurate and incomplete. These causes also delayed progress and increased the cost.

Steps have been taken to obviate the recurrence of the defective preliminary arrangements that were made in the recess of 1913: the field staff has been considerably increased; sub-traverses have been run in many villages before the commencement of the field season; and, I have asked the Settlement Officer to submit a report regarding the systematic preservation of marks.

Experimental Maintenance of Records in Orissa.

78. *Programme.*—As in previous years, the programme was confined to the district of Balasore and portions of the Sadr and Kendrapara subdivisions of the district of Cuttack. The extension of the operations to the rest of the districts of Cuttack and Puri was held in abeyance, pending the final orders of the Government of India regarding the continuance of the operations in Orissa.

Preliminary records relating to 1,911 villages covering an area of 881·40 square miles and containing approximately 1,514,000 plots, were prepared and attested. In addition, the attestation of the records of 64 villages, covering an area of 45·32 square miles, which were prepared last year, was also completed.

79. *Staff.*—The staff employed consisted of a Settlement Officer with six Assistants. The Inspectors and recorders employed numbered 20 and 127, respectively. Of these, 3 Inspectors and 6 recorders were deputed to the Chota Nagpur Settlement for survey training during the field season.

80. *Preparation of crop statements.*—The preparation of crop statements was undertaken for the first time, and statistics were compiled for all the villages the records of which were attested.

81. *Encroachments into Reserved and Communal lands.*—During the year 1,080 cases of encroachments into reserved and communal lands in 504 villages were reported to the Collectors concerned.

82. *Changes.*—The percentage of changes made in the records-of-rights and the maps was as follows :—

Districts.			Khewats.	Khatians.	Maps.
Balasore	...	...	37·2	27·0	2·0
Cuttack	...	...	48·8	41·3	3·0

The comparatively low percentage of changes in the district of Balasore is attributable to the fact that the records of a large number of villages of that district dealt with were brought up to date by the Maintenance staff for the second time since the operations commenced. All the records were examined during recess, and the necessary corrections were embodied in the Superintendent's copies.

83. *Transfer of occupancy holdings.*—The occupancy holdings reported to have been transferred by sale comprised 1,924 entire and 4,494 part holdings, or 1·5 per cent., of the total number of holdings attested. Of the transferees, 5,413 were raiyats, 272 landlords, 682 money-lenders, and 6 lawyers. The number of transfers by mortgages was comparatively insignificant, the total number being 501 only. Their comparative fewness is probably due to the facilities now allowed by law for transfers by sale.

84. *Cost.*—The net expenditure during the year was Rs. 61,693 or about Rs. 4,050 per lakh of plots maintained. The corresponding figures for previous years were :—

			Net expenditure.		Expenditure per lakh plots.
			Rs.		Rs.
1911-12	...	...	89,166	...	6,600
1912-13	...	...	65,676	...	4,200

85. *System of work.*—The scheme referred to in last year's report, which was designed by the Settlement Officer to obviate some of the more patent defects of the existing system, was given a trial in one circle in the Kendrapara subdivision of the district of Cuttack. The resident recorders were replaced by a peripatetic staff. The points urged in favour of this system were that it would

ensure proper control and supervision of recorders and Inspectors and that its adoption would enable the work to be completed more cheaply and expeditiously. From both these points of view, the experiment was successful.

A full report on the system of maintaining the records and containing proposals for the modification of the existing scheme was submitted to the Board with my letter No. 4774, dated 31st July, 1914.

Maintenance of Land Records in Sambalpur.

86. There was no material change in the Land Records staff during the year. Four Revenue Inspectors were deputed to the North Bihar Settlement for training in revision work. Proposals for the award of good conduct allowances to patwaris have been sanctioned by the Local Government. The prescribed amount of check work was attained by the Revenue Inspectors. The Tahsildar and the Additional Tahsildar of the Sadr Subdivision again failed to test any khasra entries; while those stationed at Bargarh checked only 689 entries, which is still inadequate. I visited the district in February, 1914, and inspected Maintenance of Land Records in five villages.

87. The maps used at present by the Patwaris are traces prepared from traces that were themselves copies of old maps of the district prepared by a non-professional or untrained agency. They are, therefore, defective and are, besides, seriously inaccurate owing to the expansion of the tracing cloth on which they have been prepared. The expansion, in many cases, was found to be as much as 5 chains in 80: Map correction and survey of new cultivation, which are the main duties of the Patwaris in maintenance operations, cannot be carried out with any pretence of accuracy on the basis of these maps; the work of the Land Records staff, as at present employed, is, therefore, to a large extent, infructuous, and the maps maintained in this way cannot be utilized as the basis of the next settlement of Land Revenue of the district which will begin in 1920. I have proposed, therefore, that the Patwaris of the district should be employed from the ensuing field season in preparing new maps on the basis of the traverse data to be plotted by the Traverse Section on new sheets for their use, and, in order to maintain an adequate standard of survey and draftsmanship, that they should be placed for the first year under the supervision of a professional Survey Officer and trained Inspectors, who will give them preliminary instruction in the proper methods of cadastral survey, including inking and drawing of maps. When the Patwaris have attained proficiency, by the end of the field season, they can return to their circles and complete, during each succeeding season, the area that may be assigned to them. They will, it is believed, be able to prepare the maps and records of about one-fifth of the total area of the district in a season, and by the end of the year 1918-19, the Deputy Commissioner will have a complete set of new maps and records, which can be used as the basis of the Land Revenue settlement, as well as copies of the maps on bank-post paper reproduced by the Vandyke process for use in the Maintenance operations. Since the close of the year, the scheme has been sanctioned by the Local Government.

North Bihar Mutation Offices.

88. After the commencement of revision operations in North Bihar, the Mutation office at Bettiah in the district of Champaran was abolished. The other two offices at Hajipur and Mahnar in the district of Muzaffarpur are still maintained, but proposals for their abolition will be submitted when revision operations are extended to that district. The total receipts from all sources in the two offices amounted to Rs. 1,931-8, as against a total expenditure of Rs. 2,100-5-9, including fixed allowances, paid to the Sub-Registrars for mutation work, and irrespective of the salaries drawn by them from the Registration Department. These extra payments made to the Sub-Registrars were not, however, taken into consideration in arriving at the figures mentioned in the Revenue Department letter No. 7765R., dated 24th November, 1913, to the Board of Revenue, Bihar and Orissa. Including them, the result of the working of the two offices for the last 10 years (from 1905 to the close of the year under report), is a loss of Rs. 2,043 in the case of Hajipur, and a small profit of Rs. 38 for the Mahnar office. I think that both offices should be abolished at an early date.

Mutations in Government and Wards' Estates.

89. The results of the mutations effected during the year under review in Government and Wards' Estates, will be found in Appendix V. In the Government estates, the standard number of mutations, *viz.*, 8 per cent. of the total number of tenancies was attained in only five districts. In the remaining districts, the percentage varied from 0·53 to 7·40 per cent. In the Hardaspur estate in Darbhanga, Ramdas Chak in Saran, Sadr Khasmahal in Bhagalpur, the Hata estate in Hazaribagh and in the Chandbali and Bhadrak salt-gola estates in Balasore, no mutations were effected. In four of the six estates in Saran, the number of mutations exceeded the prescribed standards, in one the standard was nearly attained and the sixth is reported to have been recently formed by alluviation. In Darbhanga, the low percentage in one estate and the absence of any mutations in the other are attributed to the fact that the Collector enhanced the rents (except in cases of mutations by inheritance) to Rs. 10 per bigha and hence very few sales and purchases took place.

The percentage of mutations in the districts of the Patna Division fell below the prescribed standard. This is attributed to the neglect of Khasmahal tahsildars to ascertain and record mutations and want of sufficient supervision by the Subdivisional Officers. The low percentage in Gaya is reported to be due to the non-recognition of mutations of portions of holdings and in Shahabad to the fact that the record-of-rights has only been recently completed. In the district of the Santal Parganas the number of mutations exceeded the prescribed standard. Out of the four estates in the district of Purnea, the number of mutations in one estate nearly reached the prescribed standard. The low percentage in the other three estates is reported to be due to neglect of the Patwaris. The Collector has taken adequate steps to ensure better results in future. No reason has been assigned for the low percentage of the mutations in the districts of Bhagalpur and Monghyr; but the Commissioner has invited the attention of the Collectors concerned to the matter and has asked for explanations. In the Orissa Division, the standard was exceeded in the Banki and the town Khasmahal estates in the district of Cuttack. The low percentage of mutations in the other estates of the division is reported to be due to the fact that only small numbers of transfers were effected during the year. This explation is, I think, somewhat unlikely. In the district of Hazaribagh, the Kharagdiha and Hata estates were under settlement operations and hence mutation work in these estates was not proceeded with. In the Kodarma Government estate, the percentage was 5·10, which is an improvement on the previous year's figures. The percentage of mutations decreased, however, in the district of Ranchi. The decrease is said to be due to the neglect of the officers in charge of the estates to enforce a higher standard. In Palamau, the number of mutations exceeded the standard. The average percentage of mutations in all Government estates including those in which no mutations were effected amounts to 5·78 per cent. In the case of Wards' estates in Chota Nagpur, the prescribed standard was nearly attained in one estate and exceeded in the eighteen estates which are situated, with one exception, in the district of Ranchi. In the Tirhut, Bhagalpur, Patna and Orissa Divisions, with the exception of one or two estates in each division, the percentage of mutations was generally low. The mutation work shows some improvement in Gaya as compared with last year's figure. In the Tirhut Division, the percentage of mutations in all the Wards' estates is below the prescribed standard. The low percentage in the districts of Saran and Muzaffarpur is ascribed to non-recognition of mutations of portions of holdings. No reason is given for the low percentage in the Bettiah estate in the district of Champaran and the Narhan estate in Darbhanga; but the Commissioner has invited the attention of the Collectors concerned to the matter. No satisfactory reasons are given for the low percentage of mutations in the Bhagalpur Division. In the Dompara estate of the Orissa Division, the standard was exceeded. The low percentage of mutations in the Darpan estate is assigned to the general prosperity of the tenants owing to the extension of jute cultivation and in the Kaupur estate to the unfamiliarity of the tenants with the system of recording mutations, which was only introduced in May, 1913. No reason has been assigned for the low percentage in the Parikud Wards' estate.

INSPECTION OF RENT-ROLLS.

90. The details of the results of inspection of the rent-rolls by superior and inferior agencies have been embodied in Appendix VIII. As usual, the percentage of check in many cases amounted to 100 per cent., and some unreported mutations were detected. As was the case last year, the prescribed standard of 50 per cent. check of the rent-rolls was not attained in several estates, and no satisfactory explanation of the failure to reach the standard has been furnished.

CHAPTER V.—MAINTENANCE OF BOUNDARY MARKS.

[*See* Appendix IX.]

91. The reports received from the District Officers indicate that the work of maintenance of boundary marks generally continued to receive adequate attention. The details of the results of inspection will be found in Appendix IX. The more important items gathered from the reports of the District Officers are noted below:—

92. *Patna Division.*—In the district of Patna, the boundary marks were distributed and placed in charge of the daffadars concerned in the two remaining police-stations of Silao and Asthawan. In the Government estates in the Barh and Bihar Subdivisions, the marks which had been washed away by the previous year's floods, were replaced. A criminal case, under section 426 of the Indian Penal Code, was instituted against six persons for causing damage to the boundary pillars of the Government estate of Diara Dinapore Shahzadpur; they were convicted and fined Rs. 50 each.

In the district of Shahabad, the marks were allocated to the daffadars and chaukidars concerned in thanas Arrah, Piro, Shahpur, Bikramganj, Dumraon, and Buxar. In the Government estates in the district of Gaya, numbers of boundary marks were found missing. They were, it is believed, removed by ill-disposed persons, with the object of instituting boundary dispute cases during the survey and settlement proceedings. There were no prosecutions in any case, as timely information was not given; the marks will be replaced during the survey and settlement operations.

93. *Tirhut and Bhagalpur Divisions.*—Boundary marks in the private estates of the Tirhut Division and in the portions of the districts of Bhagalpur and Monghyr lying north of the river Ganges have not been maintained according to existing rules, and the attempt to maintain them has been held in abeyance pending the erection of new marks and the verification of the old ones during the course of the revision settlement operations; in South Bhagalpur, the verification of the marks and their distribution to the custody of the daffadars were completed in thanas Amarpur and Katoria and police-station Dhuriya; ninety marks were restored. In the district of Santal Parganas, three masonry pillars on the boundary of the Damin-i-koh Government Estate were repaired; in one case of wilful damage to a trijunction mark, the culprit was prosecuted and fined Rs. 25. In the Government estates in the Tirhut Division, the marks were found to be generally in fair order.

94. *Orissa Division.*—In the district of Balasore and in a portion of the district of Cuttack, the work of inspection and maintenance of boundary marks was under the control of the Land Records Maintenance Department. All the marks found damaged or missing were restored. The distribution of the marks to the daffadars and chaukidars in Cuttack, Balasore, and Puri has been delayed, partly on account of the failure of the Settlement Department to supply the necessary maps and registers. It is hoped that the distribution of the marks will be completed by the end of the field season. In Angul, 20 new pillars were erected on the boundary line between the district and the Athmalik State, and 15 on the line between the Khondmals Subdivision and the district of Ganjam in the Madras Presidency. The marks were found to be well preserved in the district of Sambalpur.

95. *Chota Nagpur Division.*—In the district of Ranchi, the work of allocation of the marks has been completed and the marks are now looked after by thana officers; seven marks were found damaged or missing, of which two were

restored during the year; in district Hazaribagh, the boundary marks registers and maps of fifteen police-stations were made over to the Deputy Commissioner, and the marks have all been distributed to the custody of chaukidars. In the Government estates in the district of Palamau, all the marks were inspected and those found damaged or missing were restored.

In the district of Manbhum, the systematic maintenance of boundary marks is confined to the area comprised in Parganas Barahabhum and Patkum. During the year the marks in thana Chandil were distributed to the custody of chaukidars thus bringing to a close the work of allocation for the whole area; twenty-six missing or damaged marks were restored at a cost of Rs. 13; the boundary marks erected at the time of the Ghatwali survey of 1881 are mostly still extant and are, as a rule, carefully maintained by the Ghatwals in their own interests. In the district of Singhbhum, a number of pillars on the boundary line between the district and the adjoining Political States were found damaged or missing; the Deputy Commissioner is taking action to have them restored at an early date; the boundary line between the Bonai State and the Singhbhum Reserved Forests was demarcated during the year with stone cairns; the marks preserved by local agency in the Kolhan Government estate were found to be insufficient for the purpose of the revision survey, with the result that a supplementary traverse was found necessary in some places. Enquiries are now being made regarding the system of preserving the marks in vogue in the estate.

96. *Fund for the Maintenance of Boundary Marks.*—During the financial year 1913-14, a sum of Rs. 6,863 in respect of six thanas in Shahabad was recovered in advance and transferred to the fund for the Maintenance of Boundary Marks. The total receipts up to the end of the financial year amounted to Rs. 25,194. The total expenditure up to the end of the year was Rs. 1,331-1-8, leaving an opening balance of Rs. 23,862-14-4. The amount expended during the financial year 1913-14 was Rs. 160-0-3, the details of which are noted below:—

	Rs.	a.	p.
South Bhagalpur	128	8	3
Parganas Barahabhum and Patkum, district Manbhum ...	13	0	0
Jagir Mahals and Parikud Estates, district Puri ...	11	8	0
Kila Bishunpur and villages Arilo and Ratagarh, district Cuttack.	7	0	0
Total ...	160	0	3

CHAPTER VI.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

97. *Charge.*—I was in charge of the Department throughout the year.

98. *Tours.*—I spent 142 days on tour, of which 128 days were spent in inspecting the Settlement operations of the Province, and 14 days in inspecting Traverse Survey and the Drawing Office. I paid five visits each to the South Bihar and Chota Nagpur Settlements and four visits to the North Bihar Settlement. I inspected once the Kolhan Settlement and the Maintenance of Land Records in Orissa and in Sambalpur.

Merits of Officers.

99. I desire to bring to the notice of the Board the excellent work done during the year by several officers employed in this Department. Mr. Sweeney, who was the only Civilian officer employed in North Bihar, worked out and developed a sound system of Revision survey and record-writing, which will, no doubt, become the standard method employed in the Revisional operations throughout the province of Bihar and Orissa; the organization of the programme left nothing to be desired, and the cost rate was reduced to the minimum consistent with efficiency. Mr. Tanner controlled the very heavy programme of the South Bihar Settlement with marked ability and efficiency.

Mr. Sifton maintained a high standard of work in Chota Nagpur. Of the Covenanted Assistants, Mr. Bridge, again, deserves special mention for the energy and industry displayed in organizing the Cadastral Survey operations in Palamau; Messrs. Duncan, Boyce, Tuckey, and Saunders gave their respective Settlement Officers the greatest assistance in carrying through the programme.

Babu Hari Das Ray, the Superintendent of Maintenance in Orissa, continued to supervise the difficult Maintenance operations in Orissa with efficiency.

The majority of the officers of the Provincial and Subordinate Executive Services worked satisfactorily. I regret, however, that I am obliged to again comment on the lack of zeal displayed by a minority of these officers. There were the same signs of unwillingness on the part of a number of them to undertake strenuous work in the field, and to undergo any of the physical hardships that are involved in the supervision of survey, and, at the beginning of the field season, the same unwillingness to join the Survey and Settlement Department was apparent.

The following officers have been selected for special mention from this year's reports:—

Junior Civilian.

Mr. W H. Lewis.

Deputy Collectors.

Babu Basanta Kumar Ray.
„ Surendra Nath Sen.
Maulvi Abdul Qadir Khan.
„ Muhammad Hamid.
Babu Phani Bhushan Mitra.
Mr. H. McPherson.
Babu Ramu Lal Varma.
„ Pulin Bihari Aikat.
„ Sudhanshu Bhushan Mitra.
Lala Prem Nath Kapur.

Sub-Deputy Collectors.

Babu Phanindra Nath Gupta.
„ Sharbari Kanta Gupta.
Mr. J. E. Coutts.
„ H. W. Alderson.
Babu Pashupati Ghosh.
Pandit Birinchi Jha.
Babu Manoranjan Sinha.
Babu Ashutosh Sen Gupta.
„ Bhagaban Mahapatra.
„ Sukhdeo Narayan.
„ Chandra Kumar Mathur.
„ Jogeshwar Prasad.
„ Krishna Chandra Ghosh.
„ Uma Charan Das.
Babu Bhupendra Nath Ghoshal.

Non-gazetted Officer.

Babu Jaideo Misra.

Police Officers.

Mr. D. B. Cumming.
„ C. R. B. Murray.

Acknowledgments.

100. The Hazaribagh Settlement owes very much of its practical efficiency to the constant co-operation of Mr. E. Lister, I.C.S., the Deputy Commissioner, with the Department. The knowledge that serious breaches of the Tenancy Law when brought to the notice of the Deputy Commissioner were punished promptly and adequately, added considerably to the prestige of the camp officers and, in consequence, to their capacity for successful work. The fines inflicted on landlords, who refused to give rent-receipts, were adequate and will, no doubt, effect a great improvement in this respect.

PART II.—TRAVERSE SURVEYS AND DRAWING OFFICE.

CHAPTER I.—TRAVERSE SURVEYS: GENERAL SUMMARY AND GENERAL REMARKS.

Programme and outturn.

101. The approximate programme of traverse survey in the districts of Gaya and Palamau was 2,552 square miles against an actual outturn of 2,592 square miles, excluding 269 square miles of Khas Mahal area partially re-traversed

n Palamau district. In addition, the following miscellaneous surveys were undertaken and completed : the traverse survey of the remainder of the Sauria Paharia tract in the Santal Parganas, the traverse of the Ganges Diara and the erection of reference pillars in the districts of Patna, Bhagalpur, and Monghyr, and eleven isolated petty surveys.

Departmental rules.

102. A treatise containing rules for the conduct of traverse work in recess under the title " Notes on Traverse Survey and Computation " was prepared and issued.

Use of baked clay cylinders.

103. As it is essential for purposes of revision to mark permanently a proportion of the ordinary traverse stations, the use of wooden pegs was altogether discontinued, except in the case of disputed boundaries: Baked clay cylinders made locally were used for marking intermediate traverse stations in district Gaya ; in Palamau, the use of undressed local stones was continued; trijunctions were as usual marked with prism stones.

Cost rates.

104. Excluding the share of control, the cost-rates attained during the year in the districts of Gaya and Palamau are Rs. 31·66 and Rs. 25·77 per square mile against Rs. 32·54 and 33·68 per square mile in the previous year, respectively, the initial estimated rates for the two districts being Rs. 38 and Rs. 33. The reduction in rates is satisfactory. The great decrease in the case of Palamau, where the survey was specially difficult and arduous, is due to the energy and ability with which the operations were controlled and organized by the Traverse Assistant, Mr. Boyd.

CHAPTER II.—DISTRICT SURVEYS.

District Gaya.

[*See* Appendix XI.]

105. The programme of Traverse Survey in District Gaya consisted of the unsurveyed portions of Thanas Sherghati, Barachati, Rajauli, and Gaya. This completes the traverse survey of the District. The area traversed was 1,394 square miles comprised in 2,177 villages.

106. The number of theodolite stations erected was 28,466, of which 3,153 have been marked by prism stones, 146 by masonry pillars, 9,461 by baked clay cylinders, 7,525 by wooden pegs, 5,980 by local stones, 2,037 by marks cut on rocks *in situ* and 164 by old cylinders. Connections have been made with three stations of the Great Trigonometrical Survey, and the angular work has been checked against the result of 107 observations for azimuths. The old traverse stations of the 1910-12 survey of District Hazaribagh have been used as common points.

107. As in previous seasons, the area under traverse was found to be interspersed with numerous villages of the Maksudpur, Tikari, Deo, and Government estates previously surveyed and settled. The area of these villages has been excluded from the present traverse operations; but 16″ plots from the old traverse tables, covering 403 sheets, have been prepared and supplied to the Settlement Officer for revision work. The computation and plotting of the old stations entailed a considerable amount of extra work.

108. The season's outturn has been plotted on 2,780 sheets on the 16″ = 1 mile scale, 94 rough plots on the 4″ scale, and 40 reductions on the 2″ scale. All the sheets have been despatched to the Settlement Officer.

109. The village boundaries were not demarcated beforehand; but the landlords and tenants generally gave assistance during the survey and pointed out village boundaries.

110. There were several cases of desertion among the menials in the field. This retarded the progress of the revision work, which was rather heavy owing to the hilly and undulating nature of the country traversed. The health of the establishment was on the whole fair, although some of the men suffered from dysentery and fever.

District Palamau.

111. The programme of traverse survey in district Palamau consisted of Thanas Ranka and Garhwa with an area of 1,198 square miles comprised in 658 villages.

112. Altogether 20,806 traverse stations were erected, of which 2 were marked by old pillars, 17,194 by local stones, 2,631 by marks cut on rocks, 966 by wooden pegs along disputed boundaries, and 13 by old cylinders of the previous survey. Connections have been made with 16 stations of the Great Trigonometrical and Topographical surveys. The old traverse stations of the Mirzapur Survey of 1882-85 have been used as common points. The angular work was checked by 141 azimuth observations.

113. The country traversed is mostly hilly, and undulating, and is in places covered by heavy forests. Considerable revision work was necessary. The area was, moreover, unhealthy and the establishment suffered severely from dysentery and fever.

114. The season's outturn, which has been plotted on 1,541 sheets on the 16″ = 1 mile scale, 73 rough plots on the 4″ scale, and 32 sheets of 2″ reductions, have all been sent to the Settlement Officer.

115. There was practically no demarcation of village boundaries. The leading zemindars, however, as soon as they understood the necessity of demarcating these by temporary marks, co-operated with the survey staff, and the field work was completed in March. River circuits have been run along the Surguja side of the Kanhar river.

116. The Khalsa area, including the Khas Mahal villages and Protected Forests, in Thanas Latehar and Mahuadanr, which was cadastrally surveyed and settled in 1893-96, but was not re-traversed last year, was re-traversed during the field season. This was found to be necessary, as the Cadastral surveyors found that the previous traverse was inadequate: The boundaries of villages were found to have changed, while the area cultivated has extended in all directions. Considerable difficulty was experienced in locating the old traverse station, specially those lying in the cultivated area. Boundary lines between Khas Mahal villages were not demarcated or cleared in time and the villagers were sometimes unable to point out the boundaries. Considerable revision of the field work was required, and it was found necessary to postpone a part of this work until the month of October. The Survey sheets will, however, be made over to the Settlement Officer in time.

The area re-traversed was 269 square miles, including sixty-five square miles of Protected Forest blocks, which have, as desired by the Settlement Officer, been plotted on the 4″ scale. Of the 4,595 theodolite stations put down, 4,152 were marked by local stones, 405 by marks cut on rocks, and 38 by wooden pegs. The village area has been plotted on 315 16′ sheets, while the Protected Forest blocks cover 36 sheets on the 4″ scale.

117. Several cases of defective traversing relating to the survey of 1912-13, were reported by the Settlement Officer, Chota Nagpur. The enquiries made showed that several of the complaints were justified, and the line-cutters and sub-surveyors were found to have frequently failed to adhere to the rule regarding the location of traverse stations within two and-a-half chains of the village boundaries, while traverse stations were also found to be frequently lacking on the banks of large rivers. Steps have been taken to remedy these defects, and the Traverse Assistants in charge of the work will be held responsible that the rules are properly observed in future.

CHAPTER III.—MISCELLANEOUS SURVEYS.

District Santal Parganas.

[*See* Appendix XI.]

118. *Sauria Paharia Tracts.*—The programme consisted of the traverse of the remaining portions of the Sauria Paharia hills in the Godda and Rajmahal Subdivisions of the district. The area completed was 175 square miles, comprised in 521 villages and covering 593 sheets on the 16″ scale, which were all supplied to the Settlement Officer during the field season.

119. As in the previous season, the area under traverse was very hilly and unhealthy, and the establishment suffered very much from malaria. The village boundaries were not demarcated, and the Paharias, with few exceptions, were at first averse to the survey; on receipt of orders from the Subdivisional Magistrate, they, however, rendered assistance generally.

120. The number of traverse stations erected was 9,753, of which 7,189 have been marked by local stones, 2,071 by marks cut on rocks, 342 by wooden pegs, and 151 by old cylinders. The angular work was checked by 58 azimuth observations.

The Ganges Diara Special Demarcation.

121. The Ganges Diara (Special Demarcation) Survey, which was kept in abeyance last year, was continued. The field work consisted of the placing in suitable positions on each side of the river Ganges, beyond the reach of silt or fluvial action, a series of reference pillars at intervals of about half a mile, and the fixation of the position of conspicuous landmarks by triangulation. These operations could not be started before the middle of March, when the traversers from the Santal Parganas were available and were deputed to complete the programme.

122. The tract dealt with during the year extends from Mokameh Ghat to Akbarnagar on the right bank, and Simaria Ghat to village Lagar (Monghyr) on the left bank of the Ganges, a distance of about 70 miles. The approximate area dealt with was 800 square miles. In addition, three sheets, which were left untraversed during the previous seasons, have been completed.

123. A question of some importance regarding the methods of preparing the Ganges Diara comparative maps, was discussed during the year. It was suggested that the existing method of selecting the common or fitting points by superimposing maps compiled from old Revenue and Diara maps is open to objection, since there is no mathematical proof of the accuracy of the position of the selected points.

124. In order to test the accuracy of the maps as at present compiled, an area of about 20 square miles was mapped both by the existing method, as also by accurate plotting of the traverse stations of the Revenue and Diara Surveys after computing their co-ordinate values in terms of the origin of the latest survey. Comparisons between the traverse totals, direct distances, and bearings from one trijunction to another (which are apparently identical) according to the old and the latest traverses, showed that the points fixed by the present method were correct within a slight margin of error. The correction necessary to make the points fit in mathematically was found to be a link in every five chains. The maps as at present compiled were, therefore, found to be more than sufficiently accurate for the purposes for which they are required.

District Singhbhum.

125. *Seraikela-Porahat Boundary dispute.*—The programme consisted of the relaying of the boundary between Seraikela State and Porahat Estate in the district of Singhbhum according to the topographical maps of seasons 1860-63. The case arose out of an appeal preferred by the Chief of Seraikela to the Local Government, stating that a portion of Koraikela Pir was included in the Government Reserved Forests.

The number of traverse stations fixed was 227; the positions of 173 pillars along 14 miles of boundary relaid have also been fixed by off-sets and marked with wooden posts, numbered serially, which have been pointed out to the representatives of both estates. A copy of the map has been sent to the Deputy Commissioner, who will arrange for the permanent marking.

District Gaya.

126. *Manohari* versus *Lawabar and Kuaria, Boundary dispute.*—The demarcation according to the Revenue Survey map of 1844-45 of the boundaries between village Manohari in thana Nabinagar, district Gaya, and villages Lawabar and Kuaria in thana Hariharganj of district Palamau, was under-

taken at the request of the Settlement Officer, South Bihar. The work was based on the traversing of season 1911-12. The sites of 28 pillars marked with wooden pegs and stone cairns have been fixed by off-sets and pointed out to the parties concerned. Copies of the 4″ and 16″ maps prepared have been supplied to the Settlement Officer, South Bihar.

127. *Donda and Karmalahong Boundary dispute.*—The demarcation of the disputed boundaries between villages Donda and Karmalahong in thana Nabinagar and certain villages of district Palamau was completed at the request of the Settlement Officer, South Bihar.

128. *Chakarbandha Boundary dispute.*—The demarcation according to the Cadastral Survey map of 1895 of the boundaries between village Chakarbandha (Government Estate) in thana Sherghati and villages Aranagar, Bara, Buka, and Moraina was undertaken at the request of the Settlement Officer, South Bihar. Traverse lines were run close to the disputed boundaries. The sites of 46 pillars were fixed by off-sets. Eventually, the boundary dispute was decided by the Settlement Officer, and the lines indicated by him were relaid. The position of 36 pillars fixed by off-sets have been pointed out to the Khas Mahal officials and the parties concerned. It is understood that they are arranging for the erection of permanent marks.

129. *Gaya Municipality.*—The traversing of the Gaya Municipality, which fell within the season's programme of the district, was undertaken at the request of the Vice-Chairman of the Municipality.

The area, 7·74 square miles in extent, was divided into two blocks on both sides of the Phalgu river; 347 sub-traverses were run along the main roads and lanes. There were 1,561 new traverse stations, which have been marked by 964 iron pegs, 515 baked clay cylinders, 3 prism stones, 4 local stones, 72 marks cut on rocks, and 3 masonry pillars. The area has been plotted on 121 sheets on the scale of 64″=1 mile, and two index charts on the scale of 4″ = 1 mile, all of which have been despatched to the Settlement Officer, South Bihar.

District Hazaribagh.

130. *Khab Boundary dispute.*—The demarcation according to the Topographical maps of 1868-69 of the disputed boundaries between village Khab in thana Satgawan in District Hazaribagh and villages Harnarainpur, Bishunpur, Madhupur, and Aktara in thana Nawada in district Gaya was undertaken at the request of the Settlement Officer, Chota Nagpur. The new traversing started from and closed on the old traverse stations of 1910-11, and followed the disputed line very closely. The sites of 44 pillars have been fixed by off-sets and pointed out to the zamindars of district Gaya. Copies of the map prepared have been sent to the Settlement Officers of Chota Nagpur and South Bihar.

District Monghyr.

131. *Bhimbandh and Gaighat* versus *Nazari, Boundary dispute.*—The demarcation of the disputed boundaries between villages Bhimbandh and Gaighat in pargana Haveli Kharagpur and village Nazari in pargana Parbatpara in district Monghyr was undertaken at the request of the Sub-Judge of Monghyr.

As the case was one of considerable importance, Mr. F. H. Alderson, Sub-Deputy Collector, was appointed Boundary Commissioner and an Indian surveyor was deputed to make the preliminary survey of the disputed area. The surveyor, who was supplied with a comparative map showing the boundaries according to the old surveys which were not connected with each other, and the latest cadastral survey, commenced the work. The parties concerned, however, did not appear to point out their claims or assist the surveyor in clearing lines, etc. Further proceedings were then stopped at the suggestion of the Sub-Judge and the dispute has been subsequently compromised.

132. *Qamaruddinpur-Mahazi Bhawanandpur Boundary dispute.*—The demarcation according to the Cadastral Survey maps of 1900-01 of the disputed boundary between village Qamaruddinpur (Dumri), a private estate, and Bhawanandpur (Ramderi), a Government estate, in pargana Malkia in district

Monghyr, was undertaken at the request of the Collector. The work was based on the traverse stations of season 1900-01 and a new sub-traverse was run close to the disputed boundary which had been fixed by off-sets. The sites of 52 pillars have been pointed out to the parties concerned and the Khas Mahal surveyor. A copy of the map prepared has been sent to the Subdivisional Officer of Begusarai, who will arrange for the permanent marking of the sites by "*ballas*" or stone pillars.

District Patna.

133. *Patna Municipality.*—The programme consisted of the traversing of the two remaining blocks and the detail survey of roads and drains, etc., in Blocks Nos. 4 to 6 and the remaining sheets of Block No. 3, which were left incomplete last season.

134. *Traversing.*—The two blocks traversed this season cover 116 sheets. There were 1,849 new traverse stations which have been marked by 10 masonry pillars, 1,832 iron pegs, 2 old cylinders, 3 marks cut on rocks, and 2 prism stones; the length of the chaining was 55 miles.

135. *Detail Survey.*—As in the previous season, three amins and an inspector were employed on the detail survey of roads, etc., in the remaining area which covered 184 sheets, making a total of 386 sheets for the entire Municipality. All the sheets, which are on the scale 1″=50 feet, have been inked up and despatched to the Bihar and Orissa Drawing Office, where they will be reproduced for supply to the Municipal authorities.

136. *Barh Municipality.*—The traversing and detail survey on the scale 64″=1 mile of the Barh Municipality with a view to prepare an authoritative record of the width, etc., of all roads and drains were undertaken at the request of the Chairman of the Municipality. The area outside the town was cadastrally surveyed in season 1907-08; but the town proper, which comprises almost all houses except a few bighas of agricultural land situated in mauzas Salempur, Kurelia Walipur, Talibpur, and Chak Niamat, was then left unsurveyed.

137. *Traversing.*—The area was divided into two blocks; 65 sub-traverses were run along the roads, etc., and the old stations of the Patna survey of season 1906-07 were used as common points. There were 424 new traverse stations, which have been marked by 2 masonry pillars, 170 iron pegs, 200 wooden pegs and 2 prism stones. The length of the chaining was 9·1 miles.

138. *Detail Survey.*—One amin, under the supervision of the Inspector, who worked also in the Patna Municipality, was employed on the detail survey of the two blocks. This work has been completed.

District Darbhanga.

139. *Raspur-Patasia Boundary dispute.*—The demarcation of the disputed boundaries between villages Raspur-Patasia and Kala Diara belonging to the Narhan Court of Wards Estate in District Darbhanga and Government Estate villages Chaparsan, Muhammadpur and Diara Railly of the Patna district was undertaken at the request of the Collector of Darbhanga.

The Government of Bengal, in their order No. 1532, dated the 9th April, 1910, decided that the boundaries should be relaid either according to the survey of 1897-98 or of 1841-42, according to the arrangements to be made by the Collectors of Darbhanga and Patna jointly. A beginning was made; but it was soon found that no decision had been arrived at as to which boundary should be relaid, and the proceedings were, therefore, unavoidably postponed.

District Bhagalpur.

140. *Tintanga-Budhu Chak Boundary dispute.*—This dispute arose out of the partition proceedings of Budhu Chak, a zamindari estate, in the course of which an area of about 300 acres of land appertaining to Government estate Tintanga was wrongly included in the former.

As all attempts at an amicable settlement of the dispute had failed and an appeal to the Revenue authorities was time-barred, the Collector of Bhagalpur decided to file a civil suit for the declaration of the right and title of

Government in respect of the aforesaid area, and asked for a comparative map showing the boundary between the two estates according to the different surveys *viz.*, (*a*) the Revenue Survey of 1848-49, (*b*) the Diara Survey of 1866-67, (*c*) the Cadastral Survey of 1903-04, and (*d*) the boundary as fixed in the course of the Batwara. A comparative map was compiled and a traverser was deputed to survey the Batwara boundary. A copy of the 4″ map prepared has been sent to the Collector, together with a statement showing the area which has been encroached upon.

District Saran.

141. *Sitab Diara Boundary dispute.*—The demarcation according to the latest cadastral survey of season 1898-99 of the northern and eastern boundaries of mauza Sitab Diara in pargana Manjhi of district Saran was undertaken at the request of the Collector. The work was based on the old traverse stations of 1898-99, and new sub-traverses were run close to the boundaries. The sites of 90 pillars have been marked with wooden pegs, and pointed out to the agent of the Dumraon Raj. The sites of 25 pillars could not be marked as these lie in deep water.

The Manager, Dumraon Raj, desired to have the boundary marked with permanent pillars; but as the other parties concerned, especially the Manager of the Bettiah Estate, objected, no permanent pillars were built and the parties aggrieved were directed to represent their case to the Collector, who has been supplied with a copy of the 4″ map prepared.

Additional Sub-traverses in Revision Surveys.

142. Additional sub-traverses were found necessary in the Revision surveys in the district of Champaran and in the Kolhan Estate of Singhbhum district. Three surveyors were deputed to Champaran and five to the Kolhan during the field season to assist the Settlement Officer.

CHAPTER IV.—BIHAR AND ORISSA DRAWING OFFICE.

[*See* Appendices XI and XII.]

143. *Charge.*—Mr. J. H. Murphy held charge of the office throughout the year. Mr. E. G. Hardinge, Extra Assistant Superintendent of Surveys, was in charge of the Imperial Standard Mapping Section.

Imperial Standard Mapping Section.

144. The Standard Mapping Section was employed on the preparation of Standard Maps of 15 minutes of latitude by 15 minutes of longitude on the 2″ scale, from the data supplied by recent Cadastral Surveys. The outturn of Standard Mapping during the year was as follows:—

(1) Forty-eight standard sheets, covering an area of 10,810 square miles, were sent to the Map Publication Office for publication, as against 29 sheets covering an area of 5,879 square miles sent last year. The sheets sent for publication relate to the following districts, namely, Saran, Shahabad, Patna, Gaya, Monghyr, Santal Parganas, Sambalpur, Ranchi and Hazaribagh of the Province of Bihar and Orissa; Benares, Mirzapur, Ghazipur, Ballia and Benares State of the United Provinces and Raipur district of the Central Provinces. Fifteen of these maps were prepared for revision purposes, namely, those of districts Saran, Ranchi, and Hazaribagh and a few sheets of districts Shahabad and Gaya.

(2) Eleven standard sheets covering an area of 2,535 square miles appertaining to the districts of Sambalpur, Ranchi and Hazaribagh have also been completed, and will be sent for publication at an early date.

(3) Fifty-seven standard sheets are being compiled: they relate to the districts of Gaya, Patna, Monghyr, Hazaribagh, Ranchi, Manbhum, and Singhbhum in the Province of Bihar and Orissa, and districts Midnapore, Darjeeling, Jalpaiguri, and Dinajpur in Bengal.

145. In addition to the above programme, the following maps were also completed and made over to the Director of Surveys, Bengal and Assam, and the Superintendent of Trigonometrical Surveys, Dehra Dun :—

(*a*) 20″, 40″ and 60″ maps of portion of the Darjeeling Municipality.

(*b*) 20″ map of the Happy Valley Survey, Darjeeling.

(*c*) 30″ maps of the Lebong and Takdah Cantonment.

146. *Summary of the progress of Standard Mapping.*—In addition to the sheets completed and under compilation, 31 sheets of the Province of Bihar and Orissa remain to be compiled. They appertain to the three districts of Gaya, Palamau and Manbhum. The table below shows the progress made, district by district, up to the end of the year :—

District.	Area published or sent for publication.	Area completed but not published.	Area in hand.	Area remaining to be dealt with.
	(Sq. miles.)	(Sq. miles.)	(Sq. miles.)	(Sq. miles.)
Champaran	3,548	...	...	...
Saran	2,686	...	...	...
Muzaffarpur	3,041	...	...	...
Darbhanga	3,364	...	...	...
Purnea	4,998	57	...	...
Bhagalpur	4,226	...	...	...
Balasore	2,083	...	...	...
Cuttack	3,657	...	...	...
Puri	2,451	...	...	...
Angul	1,681	...	...	...
Santal Parganas	5,110	424	...	...
Monghyr	3,874	...	122	...
Patna	1,124	...	1,010	...
Shahabad	3,603	709	...	...
Gaya	...	...	3,362	1,350
Ranchi	4,507	1,907	714	...
Hazaribagh	2,482	1,007	3,532	...
Singhbhum (including Saraikela and Kharsawan States) ...	3,086	148	1,259	...
Manbhum	297	81	89	3,730
Sambalpur	3,412	64	...	...
Palamau	...	...	...	4,914

Provincial Drawing Office.

147. *District Maps.*—The method of preparing the District maps was described in last year's report. During the year the maps of districts Bhagalpur and Monghyr were completed and sent for publication to the Map Publication Office. The map of district Santal Parganas is being compiled.

148. *Skeleton District Maps.*—During the year a proposal to standardize and publish up to date skeleton maps of all the districts included in the Province of Bihar and Orissa on the scale of 8 miles to the inch was sanctioned in Government Order No. 5458R—IIIM-5, dated the 29th June, 1914. One hundred copies of each map will be reproduced.

149. *Detailed Thana Maps*—The method adopted in the preparation of the detailed Thana Maps was described in last year's report. The year's programme consisted of the preparation of the maps of 30 thanas, appertaining to the six districts of Balasore, Puri, Sambalpur, Patna, Monghyr, and Bhagalpur.

The maps of the following 24 thanas were completed during the year: Balasore, Basta, Baliapal, Jellasore (Balasore); Sultanganj, Katoria, Banka, Colgong, Bhagalpur, Amarpur (Bhagalpur); Dinapore, Maner (Patna); Jamalpur, Surajgarha, Lakhisarai, Kharagpur, Chakai, Jamui, Monghyr (Monghyr); Rampella, Mura, Katarbaga, Laikera, Jharsogra (Sambalpur).

150. *Preliminary thana maps.*—The work of compiling and printing preliminary or index thana maps of districts Sambalpur and Santal Parganas was brought to a close by the publication of 13 maps of district Sambalpur and 2 maps of district Santal Parganas. In the case of districts recently taken up for survey and settlement, the preliminary thana maps are being prepared by the Settlement Officers.

151. *Special Ganges Diara maps.*—In consequence of the extension of the survey operations in the Ganges diara as far as Barharwa, where the river leaves the Santal Parganas, the total number of sheets for publication now amounts to 137. Of these, 13 sheets were completed and 18 were published during the year under report bringing the number published up to date to 34.

152. *Costs.*—A statement showing the cost per copy of various kinds of maps reproduced during the year is given in Appendix XII. The cost rates are higher than those of last year, partly owing to a considerable decrease in the number of copies ordered and the annual increment in the pay of the permanent staff. The question of the reduction of the cost rates, which are considerably higher than those for similar work performed at Hazaribagh by the Settlement Officer, is engaging my attention: As soon as the office is transferred to Patna, the staff of menials and other workers engaged in purely mechanical operations will be reduced in proportion to the decrease in the volume of work; I have already dispensed with the services of one gazetted officer who is no longer required in the Drawing Office; and I have instructed the officer in charge of the Drawing Office to reorganize this branch of the work. The organization has been for some time defective.

153. *Miscellaneous.*—The detailed figures showing the outturn of the different sections of the office are given in Appendix XI. The total number of copies of maps of all kinds of the Province of Bihar and Orissa supplied during the year was 241,982, which were printed from 18,253 plates, while those appertaining to the Province of Bengal reproduced in the Bihar and Orissa Drawing Office numbered 23,860, printed from 588 plates.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

154. *Charge.*—I was in charge of the Survey Department throughout the year.

155. *Tours.*—I was on tour for 142 days, of which 14 days were spent in inspecting the office of the Traverse Section at Hazaribagh and the Bihar and Orissa Drawing Office in Calcutta. I also inspected, during the course of my inspections of settlement work, the Town Survey of Patna City and the Traverse Survey of the district of Gaya.

156. Most of the officers employed in the Survey Department worked well, but I can only bring to the notice of the Board those whose merits were conspicuous : Mr. H. S. Boyd was in charge of the Traverse programme in Palamau. His organization of his field staff was remarkably successful, and he brought to a close the heavy programme of that district nearly two months earlier than usual. Mr. F. H. Alderson, who was in charge of Miscellaneous Surveys, supervised the various surveys under his control with care and thoroughness ; his expert knowledge of the system of both cadastral and traverse surveys is a great asset. The services of Babu Dharani Dhar Mukharji, Head Computer of the Traverse Section, and of Mr. Skempton and Mr. Beer, Supervisors of the Bihar and Orissa Drawing Office, were also conspicuous.

Merits of Officers.

I have the honour to be,

SIR,

Your most obedient Servant,

JOHN REID,

Director of the Department of Land Records and Surveys,
Bihar and Orissa.

APPENDICES.

[*N.B.*—Figures in these Appendices, which do not agree with those in last year's Report, are revised figures.]

APPEN

[*See* Chapters II to IV of

General Progress of Survey and Settlement

Note—The areas shown in this Appendix

Division and District.	Name of estate or tract under settlement.	Date of inception of operations.	Estimated area in square miles under settlement.	Total number of villages.	Area cadastrally surveyed in square miles.			AREA IN		
								In which records were prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
Orissa.										*Government*
Puri ...	Khurda Government Estate.	September, 1911	883	1,378(a)	...	...	...	883	...	883
										II.—Other
Patna.										*(a)—Ord*
Gaya ...	Gaya District ...	October, 1912...	4,661	...	1,405	1,598	3,003	1,405	1,598	3,003
Shahabad ...	Shahabad District ...	November, 1908	4,194	6,025	4,194	...	4,194	4,194	...	4,194
Bhagalpur.										
Monghyr ...	South Monghyr ...	October, 1906...	2,285	2,018	2,285	...	2,285	2,285	'19	2,285
Chota Nagpur.										
Hazaribagh ...	Hazaribagh District...	October, 1909...	6,906	7,009	6,906	...	6,906	6,906	...	6,906
Palamau ...	Palamau District ...	November, 1913	4,535	...	...	1,172	1,172	...	1,172	1,172
Manbhum ...	Parganas Barabhbhum and Patkum.	October, 1908...	934	859	934	...	934	934	...	934
Tirhut.										*(b)—Revision*
Champaran ...	Thanas Bagaha, Bettiah and Shikarpur.	September, 1913	1,720	1,505	...	1,540(b)	1,540	...	1,540	1,540
Chota Nagpur.										
Singhbhum ...	The Kolhan Government Estate.	October, 1913	1,404	911	...	636	636	...	636	636
Orissa.										*(c)—Experimental*
Cuttack ...	Cuttack District ...	December, 1911 November, 1912 Do. 1913	936	2,223	...	...	...	596	340	936
Balasore ...	Balasore District ...	November, 1911 Do. 1912 Do. 1913	1,666	3,607	...	..	...	1,124	542	1,666
	Total ...	...	30,124	25,535	15,724	4,946	20,670	18,347	5,828	24,155

(a) Exclusive of two Revenue

(b) Exclude. 70 square miles of partially-surveyed

DIX I.

Part I of the Report.]

during the year ending 30th September, 1914.

are to the nearest square mile.

SQUARE MILES.

In which attestation was completed.			In which draft publication was completed—			In which final publication was completed—			Cost of operations—			Total cost-rate in the operations shown as completed in the return.	
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
									Rs.	Rs.	Rs.		
LAND REVENUE.													
Estates.													
883	...	883	883	...	883	139	744	883	52,335	27,893	80,228	105	91
SETTLEMENTS.													
ginal.													
33	1,406	1,439	33	1,406	1,439	...	898	898	2,13,247	1,91,364	4,04,611	...	...
4,194	...	4,194	4,194	...	4,194	4,054	93	4,147	12,71,672	68,832	13,40,504	...	...
2,285	...	2,285	2,285	...	2,285	2,285	..	2,285	4,20,375	...	4,20,375	...	...
5,187	1,719	6,906	5,187	1,719	6,906	3,312	1,855	5,167	12,77,819	1,32,913	14,10,232	...	...
...	...	...	...	...	...	...	...	...	...	1,10,479	1,10,479	...	...
934	...	934	934	...	934	934	...	934	2,58,338	3,167	2,61,505	...	...
al.													
...	...	...	...	...	...	...	...	...	...	1,80,025	1,80,025	...	...
...	...	...	...	...	...	...	...	...	...	1,04,794	1,04,794	...	...
Maintenance.													
587	349	936	587	349	936	...	...	...	2,40,520	63,727	3,04,247	...	...
1,087	578	1,665	1,087	578	1,665	...	...	...					
15,190	4,052	19,242	15,190	4,052	19,242	10,724	3,590	14,314	37,33,806	8,83,194	46,17,000	...	...

free villages with an area of 143 acres.
area and 110 square miles of unsurveyed diara villages.

APPENDIX II.

[*See* Chapters II and III of Part I of the Report.]

PART A.

Progress in Settlement of Rents under section 104, *Act VIII of* 1885, *in areas that were under settlement of Land Revenue during the year ending* 30*th September,* 1914.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents were proposed.			Number of villages for which settlement rent-roll was published in draft—			Objections under section 104E.		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	Instituted—		
										To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Khurda Government Estate	883	1,378	2,13,652	2,00,744	...	2,00,744	1,353	...	1,353	637	...	637
Shahabad ...	183·26	311	27,140	19,645	3,352	22,997	144	55	199	2,600	1,169	3,769

Estate or tract under settlement.	Objections under section 104B.			Number of villages and tenants of which during the year a settlement rent roll was confirmed.						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			To the end of the previous year.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent. + or—
1	14	15	16	17	18	19	20	21	22	23	24	25
										Rs.	Rs.	
Khurda Government Estate.	637	...	637	1,350	200,676	3	64	1,353	200,740	50	56	+12
Shahabad ...	2,599	1,002	3,601	209	17,368	73	3,927	282	21,295	36,378	42,447	+16·67

APPENDIX II.

PART B.

Progress in Settlement of Rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1914.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109 (c), Bengal Tenancy Act.				Number of section 105 cases which was instituted—			
								To the end of the previous year.		During the year.	
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12
					Rs.	Rs.	Rs.				
Gaya ...	1,404	2,075	1,65,109	94	1,663	...	1,555	...	...	...	...
Shahabad ...	4,011	6,025	5,59,789	...	...	...	...	6,592	58,903	595	5,024
Hazaribagh ...	5,167	5,616	1,56,752	...	...	...	...	2,368	31,052	1,702	...
Do. Section 85 (2) (*ii*), C.N.T. Act.	...	...	...	...	...	...	...	230	17	112	478
Manbhum, Barabhum and Patkum.											
Section 85 (2) (*i*) C.N.T. Act.	934	859	59,340	...	...	...	...	1,310	...	3	...
Section 85 (2) (*ii*), C.N.T. Act.					...	...	...	603	...	...	...

Estate or tract under settlement.	Number of section 105 cases which was instituted.		Number of cases which was disposed of—						Of tenants in column 18.		
	Total.		To the end of the previous year.		During the year.		Total.				
	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Former rental.	New rental.	Difference per cent. + or —.
1	13	14	15	16	17	18	19	20	21	22	23
									Rs.	Rs.	
Gaya	...	...	...	...	...	...	...	...	...	...	...
Shahabad ...	7,187	63,927	5,692	48,077	1,855	15,850	7,547	63,927	1,64,479	1,77,410	+ 7·86
Hazaribagh ...	4,070	...	240	3,453	855	9,511	1,095	12,964	38,582	49,536	+ 28·46
Do. Section 85 (2) (*ii*), C.N.T. Act.	342	495	8	17	112	478	120	495	4,180	4,091	— 2·13
Manbhum, Barabhum and Patkum.											
Section 85 (2) (*i*), C.N.T. Act.	1,313	...	1,291	10,308	22	22	1,313	10,330	924	2,260	144·59
Section 85 (2) (*ii*), C.N.T. Act.	603	...	600	6,183	3	121	603	6,304			

APPENDIX III:

[*See* Chapter III, Part I of the Report.]

Statement showing the nature and number of holdings recorded in each settlement during the year ending 30th September, 1914.

Name of estate or tract under settlement.	Number of Khatians recorded in the name of—												
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.
	As private lands.	Not as private lands.						Service tenure.	Others.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Gaya	...	5,596	4,168	1,813	1,65,109	133	1,476	4,853	7,660	16,366	1,069	2,08,243	3,199

APPENDIX IV:

[*See* Chapter III, Part I of the Report.]

Showing the progress made in Recovery of Costs during the year ending 30th September, 1914.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.							Balance.		
			Landlords' share.	Occupiers' share.	Total.	Landlords' share.			Occupiers' share.			Grand Total collected.	Landlords' share.	Occupiers' share.	Total.
						Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Shahabad district	Shahabad district	4,71,693	1,28,321	6,00,014	4,08,793	22,616	4,31,409	1,27,220	444	1,27,664	5,59,073	40,284	657	40,941
Chota Nagpur	Hazaribagh	Hazaribagh ...	3,93,396	2,76,225	6,69,621	3,13,130	13,000	3,26,130	2,75,886	86	2,75,972	6,02,102	67,266	253	67,519
Ditto	Manbhum	Parganas Barabhum and Patkum	8,855	...	8,855	6,526	...	6,526	...	...	...	6,526	2,329	...	2,329

APPENDIX V.

[*See* Chapter IV, Part I of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1914.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies. col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																Rs.
Patna ...	41 Estates ...	47,237·70	7,118	25	18	173	30	6	15	3	...	207	63	3·7	1,368·91	25 to 200
Gaya ...	28 Estates ...	54,758·24	5,410	42	107	113	11	2	7	3	4	160	129	5·31	733·58	35 to 200
Shahabad ...	12 Estates ...	10,418	1,277	4	13	49	2	...	...	3	2	56	17	5·71	259·	60
Tirhut Division.																
Darbhanga ...	Bakhtiarpur ...	1,106·13	487	...	1	17	...	...	1	...	...	17	2	3·90	54·27	150
Do. ...	Hardaspur ...	309·60	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saran ...	Makhdumganj ...	222·65	128	1	...	9	...	...	...	...	...	10	...	7·81	1·60	85
Do. ...	Mudha ...	360·11	247	...	...	14	...	...	12	1	...	15	12	10·93	...	...
Do. ...	Ramdaschak ...	2·25	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Deopura ...	22·59	41	...	...	8	...	...	...	...	...	8	...	19·51	...	...
Do. ...	Kaithwalia ...	82·32	74	...	...	27	...	...	...	...	...	27	...	36·48	...	...
Do. ...	Bangra ...	971·26	215	3	4	6	7	...	...	...	...	9	11	9·3	37·24	125
Bhagalpur Division.																
Santal Parganas ...	12 Estates ...	2,077·82	4,427	34	21	374	...	...	...	...	...	408	21	9·69	210·79	19 to 763
Bhagalpur ...	Diara Estates ...	23,557·82	1,694	3	...	6	...	...	...	...	...	9	...	·53	30·	50
Do. ...	Sadar Khas Mahal...	219·46	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Railway B. class land	238·86	92	2	...	3	...	...	...	...	...	5	...	5·43	9·04	75
Do. ...	Supaul ...	4,217·22	323	6	...	3	...	...	...	...	...	9	...	2·78	16·71	12
Do. ...	Madhipura ...	3,358·38	607	...	...	7	...	...	...	...	...	7	...	1·15	...	...
Monghyr ...	Diara and other Estates.	64,024·	13,970	46	30	50	22	34	26	1	...	131	78	1·49	515·12	38 to 300
Purnea ...	Belwa Harinkhori...	6,079·36	1,153	1	...	24	...	...	...	1	...	26	...	2·25	104·52	29
Do. ...	Bagmara ...	1,834·26	104	5	...	1	...	...	...	...	...	6	...	5·76	102·59	19
Do. ...	Lamkahu ...	296·41	108	3	...	5	...	...	...	...	...	8	...	7·40	56·33	...
Do. ...	Soharia Sabhai ...	227·19	37	...	...	1	...	...	...	...	...	1	...	2·70	3·70	...
Orissa Division.																
Cuttack ...	Banki ...	75,030·45	35,751	277	1,115	498	947	118	487	1	15	894	2,514	9·5	765·31	145
Do. ...	Town khas Mahal ...	495	1,915	62	5	249	...	3	...	16	1	329	6	17·4	58·15	2000
Do. ...	Cantonment Khas Mahal.	507	521	17	3	4	...	...	...	1	...	22	2	4·6	1·98	3290
Balasore ...	Bichitrapur ...	3546·31	980	14	20	...	...	2	...	...	...	16	20	3·67	53·06	80
Do. ...	Nayanand Birso ...	17,987	11,572	73	210	18	15	2	6	3	3	96	234	2·85	270	91
Do. ...	Chandbali ...	178	130	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Bhadruk Salt Gola	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Angul ...	Angul ...	5,77,376	32,523	3	34	609	940	15	9	...	8	627	991	5	38·29	72-0-3
Puri ...	Khurda ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kodhar ...	5,276·52	483	...	6	...	7	...	...	...	1	...	14	2·8	...	...
Do. ...	Balukhand ...	576·67	314	...	...	...	...	...	...	...	...	1	...	...	0·33	200
Sambalpur ...	Maiguzari ...	1,30,99·98	6,902	42	77	142	13	7	24	10	5	201	119	4·6	2,548·64	30
Do. ...	Thikadari (Goantiahi).	8,64,776·51	38,687	161	657	941	79	23	140	41	22	1,166	898	5·3	15,884·15	28
Do. ...	Raiyatwari ...	8,137·90	251	...	...	1	...	...	...	...	...	1	...	·4	18·92	...
Do. ...	Zamindari ...	9,22,874·77	24,778	189	459	601	22	11	113	27	11	828	605	5·7	15,543·72	15
Chota Nagpur Division.																
Hazaribagh ...	Kharadiha ...	47,261	1,858	...	...	3	...	...	...	...	...	3	...	16	...	...
Do. ...	Hata Estate ...	7,270	2,175	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kodarma ...	36,460	3,155	4	1	81	73	...	...	1	1	86	75	5·10	868·22	300
Ranchi ...	Barkagarh ...	67,394·62	6,199	2	...	128	...	...	...	...	...	130	...	2	...	...
Do. ...	Gatia ...	5,185·84	651	...	...	32	...	...	...	...	...	32	...	4·9	...	...
Palamau ...	Palamau and Baldehri.	272,239·33	17,288	4	3	771	773	18	14	3	...	796	790	9·17	9,157·21	24-0-2
	Total ...	31,47,285·52	2,73,675	1,024	2,783	4,967	2,941	241	804	115	73	6,347	6,601	5·78	48,709·98	...

APPENDIX V—*concld.*

[*See* Chapter IV, Part I of the Report.]

Showing Mutations in Tenants' Right for the year ending 30th September, 1914.

WARDS' ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) † (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Patna	Nawada ...	7,040	2,836	2	15	182	59	...	1	...	...	134	75	7·36	222·84	...
Do.	Bharathpura ...	41,600	1,709	...	...	6	...	...	...	...	...	6	...	·35	1·48	...
Do.	Maghra ...	9,714	1,111	1	...	...	...	...	...	...	...	1	...	·09	9·77	...
Gaya	Maksudpur ...	71,244	5,731	40	42	214	2	...	2	2	...	256	46	5·2	185·7	...
Tirhut Division.																
Saran	Chautaria ...	5,516	2,411	2	1	5	...	...	...	...	...	7	1	·33	9·25	200
Do.	Khojwa ...	12,803	4,604	...	2	...	...	...	...	...	...	...	2	·04	·73	100
Do.	Mashrakh ...	8,799	5,321	3	4	1	...	...	...	...	...	4	4	·15	8·35	150
Muzaffarpur, Champaran and Saran.	Bettiah ...	1375,638·20	229,949	152	11	1049	...	1	...	6	...	1,208	11	0·52	1,493·86	104-9-0
Muzaffarpur ...	Mahtha Estate ...	7,425·23	3,644	54	61	124	18	18	...	1	...	197	79	7·57	329·78	28
Do. ...	Sursand No. I ...	14,585·56	6,599	25	146	288	...	...	...	...	...	313	146	7·04	853·37	77
Do. ...	Do. No. II ...	6,045·54	3,036	3	47	84	...	...	...	...	...	87	47	4·41	256·54	120
Darbhanga, Patna, Muzaffarpur and Monghyr.	Narhan	73,548·01	23,490	144	210	171	3	...	...	2	1	317	214	2·2	1,900·57	100-3-3
Bhagalpur Division.																
Santhal Parganas ...	Sapkara ...	51,712	151	...	—	1	...	...	...	...	...	1	...	·66	228·30	...
Do. ...	Punasi ...	21,542	250	...	—	...	...	...	...	...	...	...	—	...	...	...
Do. ...	Garsara ...	10,872	202	...	...	...	1	...	...	...	...	...	1	·49	50·07	...
Do. ...	Pakaur	15·911	12,280	99	84	1	...	...	1	2	3	102	88	1·54	123·83	76-3-6
Bhagalpur	Sukhpur ...	18,357·86	4,020	11	...	...	...	...	...	...	...	11	...	·27	37·43	30
Do.	Barari	50,348	22,072	29	18	6	...	...	...	...	...	35	18	·24	1·26	23-4-0
Do.	Shahpur ...	7,069	1,483	5	49	15	...	...	13	...	...	20	62	5·5	149	50
Do.	Lagma ...	7,350	1,894	9	46	26	...	...	55	...	...	35	101	7·1	168	50
Do.	B. N. Wards Estate Supaul.	11,209·43	4,668	1	...	1	...	...	...	...	...	2	...	...	7·48	16
Do.	Sonbarsa ...	65,044·12	16,017	51	...	21	...	...	1	...	...	72	1	·45	303·48	20
Monghyr	Bahadurpur ...	51,684	10,425	210	45	19	...	7	...	...	...	236	45	2·69	885	27
Do.	Shakarpura ...	9,728	2,845	18	5	14	...	...	...	...	...	32	5	1·30	18·8	17
Do.	Ratan	5,184	4,214	17	2	1	...	...	...	...	...	18	2	·47	77	25
Do.	Chapraon ...	14,976	5175	55	30	3	...	2	...	...	...	60	30	1·73	188	47
Orissa Division.																
Cuttack	Dompara ...	53,469·46	8,692	19	122	529	37	1	6	3	...	552	165	8·2	84·78	95
Do.	Darpan ...	68,727	26,802	125	401	422	...	1	...	...	...	548	401	3·6	404·0	69
Balasore	Kanpur ...	24,258	8,335	34	139	6	...	...	...	1	...	41	139	2·15	156·25	25
Puri	Parikud ...	42,964	6,258	56	75	36	...	2	3	...	...	94	78	2·7	459	24
Chota Nagpur Division.																
Ranchi	Armai	265,253	3,442	...	...	294	...	...	...	...	...	294	...	8·5	...	...
Do.	Biru	626.094	2,112	...	...	210	...	...	...	...	...	210	...	9·9	...	...
Do.	Kulmunda ...	20,652	298	...	...	31	...	...	...	...	...	31	...	10·4	...	...
Do.	Masmano ...	17,574	715	...	...	64	...	...	...	...	...	64	...	8·9	...	...
Do.	Jeria	335,738	3,304	...	...	290	...	...	...	...	...	290	...	8·7	...	...
Do.	Barkihenra ...	18,592	212	...	...	24	...	...	...	...	...	24	...	11·3	...	...
Do.	Jamudag ...	6,652	324	...	...	36	...	...	...	...	...	36	...	11·1	...	...
Do.	Loro	7,023	264	...	...	30	...	...	...	...	...	30	...	11·3	...	...
Do.	Tamar	331,220	1,057	...	...	100	...	...	...	...	...	100	...	9·4	...	...
Do.	Burhadih ...	18,875	398	...	...	39	...	...	...	...	...	39	...	9·8	...	...
Do.	Hatma	25,216	657	...	...	60	...	...	...	—	...	60	...	9·1	...	...
Do.	Hazam	3,498	172	...	...	25	...	...	...	...	...	25	...	14·5	...	...
Do.	Baranda ...	52,617	678	...	...	64	...	...	...	...	...	64	...	9·4	...	...
Do.	Banapiri ...	1,825	248	...	...	20	...	...	...	...	...	20	...	8·1	...	...
Do.	Chorea	7,186	434	...	...	36	...	...	...	...	...	36	...	8·3	...	...
Do.	Garu	3,424	201	...	...	20	...	...	...	...	...	20	...	9·9	...	...
Do.	Bhargaon ...	2,683	203	...	...	18	...	...	...	...	...	18	...	8·9	...	...
	Total ...	39,08,491·41	4,40,943	1,165	1,555	4,536	120	32	82	17	4	5,750	1,761	1·70	8622·62	...

APPENDIX VI.

[*See* Chapter IV, Part I of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1914.

GOVERNMENT ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Patna	Government Estates	60	106·42	63	113·27
Gaya	Ditto ...	199	1638·41	102	343·26
TIRHUT DIVISION.					
Darbhanga	Bakhtiarpur ...	...	...	...	...
Ditto	Hardaspur ...	...	...	...	...
BHAGALPUR DIVISION.					
Santal Parganas ...	Hirampur Bazar ...	1	·04	1	·04
Ditto	Amrapara „ ...	1	·05	1	·05
Ditto	Amanat Sarkar Sarfrajganj.	1	2·93	1	2·93
Bhagalpur	Diara Estate T. No. 346.	8	90·2	10	90·2
Ditto	Sadar Estate T. No. 848.	1	2·69	1	2·69
Ditto	Railway B. class Land Khas Mahal T. No. 4875.	...	...	...	...
Ditto	Madhipura Khas Mahal T. No. 2781.	...	...	2	56·25
Ditto	Supaul Khas Mahal T. No. 3854.	...	...	...	...
Monghyr	Diara Estate in Sadar T. No. 425.	17	181·35	17	181·35
Ditto	Harnathpur T. No. 1323.	2	46·90	2	46·90
ORISSA DIVISION.					
Cuttack	Banki ...	99	4541·3	99	4541·3
Balasore	Bichitrapur Khelari Jalpahi.	1	1·04	6	7·07
Ditto	Nayananda Birso...	1	·97	...	...
Angul	Angul ...	98	386·90	50	198·25
Puri	Khurda ...	10	1·27	1	·04
Do.	Balukhand ...	4	3·60	...	...
Sambalpur	Malguzari ...	4	1·25	4	1·25
Ditto	Thikadari (Goantiahi)	8	53·66	2	6·55
Ditto	Zamindari ...	36	281·60	8	79·64
CHOTA NAGPUR DIVISION.					
Hazaribagh	Kodarma ...	25	27·0	22	23·94
Ranchi	Barkagarh ...	...	...	9	35·66
Palamau	Palamau and Baldehri.	622	1887·58	443	1426·93
Total ...	...	1,198	9,250·16	844	7,157·57

APPENDIX VI.—*concld.*

[*See* Chapter IV, Part I of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1914.

WARDS' ESTATES.

Division and District.	Estate.	VACANT TENANCIES TO BE RESETTLED DURING THE YEAR.		VACANT TENANCIES RESETTLED DURING THE YEAR.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Patna	Nawada ...	4	2·38	1	·06
Do.	Bharathpura ...	...	...	6	7·09
Do.	Maghra ...	1	14·13	...	...
Gaya	Maksudpur ...	90	442	82	392
Shahabad	Surajpura No. I ...	3	8·29	1	5·63
Do.	Surajpura No. II...	3	9	3	7·72
TIRHUT DIVISION.					
Saran	Chautaria ...	8	7·20	7	5·55
Do.	Khjowa ...	17	17·79	2	·99
Do.	Masrakh ...	4	1·20	1	·20
Do.	Majhauli ...	9	20·74	2	14·44
Muzaffarpur, Champaran and Saran.	Bettiah ...	138	253·58	138	253·58
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	230	659·99	22	71·29
Muzaffarpur... ...	Mahtha ...	28	25·45	1	·3
Do.	Sursand No. I ...	25	21·93	13	20·62
Do.	Sursand No. II ...	23	21·70	12	5·25
BHAGALPUR DIVISION.					
Santal Parganas ...	Pakaur ...	296	109·55	33	10·28
Bhagalpur ...	Sukhpur ...	120	221·73	11	92·87
Do.	Barari ...	26	1·08	5	·7
Do.	Shahpur ...	3	5	3	5
Do.	Lagma ...	11	10	11	10
Do.	B. N. Ward Estate Supaul	268	657·13	7	4·12
Do.	Sonbarsa ...	1457	3626·78	354	932·39
Monghyr	Bahadurpur ...	683	2475	457	614
Do.	Ratan ...	76	206	7	30
Do.	Shakarpura ...	540	1529	105	243
ORISSA DIVISION.					
Cuttack	Dompara ...	13	5·07	13	5·07
Do.	Darpan ...	33	32·48	8	12·67
Puri	Parikud ...	25	34·98	16	25·72
	Total ...	4,134	10,419·18		2,770·54

APPENDIX VII.

[*See* Chapter IV, Part I of the Report.]

Showing New Settlements of Waste Lands during the year ending 30th September, 1914.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks, (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates	375	936·16	Settlement rates.
Gaya ...	Ditto ...	128	102·44	
Shahabad ...	Ditto ...	4	·75	
Tirhut Division.				
Darbhanga ...	Bakhtiarpur ...	1	·33	Otherwise.
Bhagalpur Division.				
Santhal Parganas	Hiranpur Bazar ...	3	·12	Settlement rates.
Monghyr ...	Town Khas Mahal	7	·70	
Do. ...	Other Estates in Sadar T. No. 1306.	2	·07	
Do. ...	Diara Estates in Sadar T. No. 425.	800	4227·82	
Do. ...	Zamin Decree T. No. 1402.	1	88·15	
Do. ...	Taluqa Bhamanandpur T. No. 1406.	68	32·95	
Do. ...	Mawazi Bhamanandpur T. No. 3366.	2	0·21	
Purnea ...	Belwa Harin Khori	7	36·44	Otherwise.
Orissa Division.				
Cuttack ...	Banki ...	63	35·05	Settlement rates.
Angul ...	Angul ...	463	929·12	
Puri ...	Khurda Government Estate.	172	237·053	
Do. ...	Balukhand ...	11	0·18	Otherwise.
Sambalpur ...	Malguzari ...	45	29·77	
Do. ...	Thikadari (Goantiahi).	502	424·87	
Do. ...	Zamindari ...	452	769·08	
Chota Nagpur Division.				
Hazaribagh ...	Kharagdiha ...	40	72·05	Otherwise.
Do. ...	Kodarma ...	22	23·71	
Ranchi ...	Barkagarh ...	76	74·14	Village rates.
Palamau ...	Palamau and Baldehri.	14	14·96	Settlement rates.
	Total ...	3,258	8036·12	

APPENDIX VII—*concld.*

[*See* Chapter IV, Part I of the Report.]

Showing New Settlements of Waste Lands during the year ending 30th September, 1914.

WARDS' ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Nawada ...	1	·06	Settlement rates.
Do. ...	Bharathpura ...	3	·71	
Gaya ...	Maksudpur ...	89	·59	Otherwise.
Shahabad ...	Surajpura No. I ...	30	101·50	Settlement rates.
Do. ...	Surajpura No. II ...	2	12·87	
Tirhut Division.				
Saran ...	Chautaria ...	7	·07	Otherwise.
Do. ...	Mashrak ...	37	22·41	
Do. ...	Majhauli ...	18	11·52	
Do. ...	Khojwa ...	12	2·26	
Muzaffarpur ... Champaran and Saran.	Bettiah ...	125	228·21	Prevailing rates of the adjoining lands.
Darbhanga, Muzaffarpur. Patna and Monghyr.	Narhan ...	85	38·09	Otherwise.
Muzaffarpur ...	Mahtha ...	87	14·93	Otherwise.
Do. ...	Sursand No. I ...	27	32·91	
Do. ...	Sursand No. II ...	10	8·53	
Bhagalpur Division.				
Santal Parganas	Pakaur ...	32	15·78	Settlement rate.
Bhagalpur ...	Barari ...	24	16·80	Prevailing rates of the adjoining lands.
Do. ...	Shahpur ...	10	6	Otherwise.
Do. ...	Lagma ...	8	2	
Do. ...	Sonbarsa ...	179	313·61	
Monghyr ...	Shakarpura ...	3	2	Do.
Do. ...	Ratan ...	2	·13	
Do. ...	Bahadurpur ...	4	2	
Orissa Division.				
Cuttack ...	Dompara ...	4	10·61	Settlement rates.
Do. ...	Darpan ...	227	122·79	
Puri ...	Parikud ...	34	65·50	Otherwise.
Chota Nagpur Division.				
Ranchi ...	Biru ...	9	4·38	
Do. ...	Barkibiura ...	8	5·50	
Do. ...	Jaria ...	11	5·80	
	Total ...	1,088	11,188·4	

APPENDIX VIII.

[*See* Chapter IV, Part I of the Report.]

Showing the results of the inspection of rent-rolls for the year ending 30th September, 1914.

Government Estates.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government Estates ...	80	7,118	78	6,802	88·5	271	75	4,905	68·9	14
Gaya	Do. ...	121	5,667	121	5,667	100	169	92	4,357	76·89	170
Shahabad ...	Do. ...	15	1,485	...	...	...	...	15	1,485	...	8
Tirhut Division.											
Saran	Makhdumganj ...	8	128	3	128	100	...	8	128	100	...
Do.	Mudha	2	247	2	247	100	...	1	197	79·75	...
Do.	Bamdaschak ...	2	4	2	4	100	...	2	4	100	...
Do.	Deopura	1	41	1	41	100	...	1	41	100	...
Do.	Kaithwalia ...	1	74	1	74	100	...	1	74	100	...
Do.	Bangra	8	215	8	215	100	...	8	45	20·93	...
Darbhanga ...	Bakhtiarpur ...	2	487	2	487	C. P.	...	2	487	100	...
Bhagalpur Division.											
Santal Parganas ...	Hiranpur Bazar ...	1	148	...	2	1·35	...	...	...	...	...
Do. ...	Amrapara Bazar ...	1	74	...	...	...	...	...	...	...	...
Do. ...	Amanat Sarkar, Sarfarajganj.	1	177	1	177	100	...	1	47	26·55	...
Do. ...	Amanat Sarkar, Madia	1	158	1	158	100	...	1	39	24·68	...
Do. ...	Gridline, Pudikpur ...	3	73	3	73	100	...	3	12	16·43	...
Do. ...	Jaogir Nathu, Hamildar.	1	15	1	15	100	...	1	10	66·66	...
Do. ...	Syedpur, Amanat Sarkar.	1	83	1	83	100	...	1	11	13·25	...
Do. ...	Nayabazar ...	1	31	1	31	100	...	1	1	3·22	...
Do. ...	Railway B. class land.	9	127	9	127	100	...	9	80	62·99	...
Do. ...	Bijaypur relinquished station land.	1	8	1	8	100	...	1	7	87·50	...
Do. ...	Sahibganj, Tauzi No. 599.	8	2,498	8	2,498	100	217	8	336	13·45	...
Do. ...	Other Khas Mahals, Tauzi No. 117, under Sahibganj.	2	50	2	50	100	5	2	50	100	...
Bhagalpur ...	Diara Khas Mahals, Tauzi No. 346.	6	1,694	6	1,694	100	114	6	1,694	100	114
Do. ...	Sadar Khas Mahals, Tauzi No. 848.	7	25	7	25	100	2	7	25	100	2
Do. ...	Railway B. class lands, Tauzi No. 4875.	21	92	21	92	100	16	21	92	100	16
Do. ...	Madhipura Khas Mahal, Tauzi No. 2781.	15	607	15	607	100	7	15	607	100	7
Do. ...	Supaul Khas Mahals, Tauzi No. 3854.	19	323	19	323	100	...	19	323	100	...
Monghyr ...	Town Khas Mahals Tauzi No. 1333.	19	1,700	17	1,556	91·53	47	16	850	50	38
Do. ...	Other Estates in Sadr, Tauzi No. 1306.	17	778	15	700	89·97	35	3	500	64·26	26
Do. ...	Diara Estates in Sadr, Tauzi No. 4225.	19	8,415	17	3,011	35·78	162	13	1,075	23·48	82
Do. ...	Zamin Decree, Tauzi No. 1402.	1	313	1	200	63·89	8	1	150	48·55	4
Do. ...	Harnathpur, Tauzi No. 1323.	1	58	1	58	100	1	1	58	100	1
Do. ...	Taluqa Bhawanadpur, Tauzi No. 1406.	9	1,918	9	1,350	70·38	10	7	510	26·59	7
Do. ...	Mawazi Bhawanandpur, Tauzi No. 3386.	5	720	5	516	71·68	5	4	175	24·30	3
Do. ...	Jalkar Nimaksar, Tauzi No. 4090.	16	16	16	16	100	...	16	16	100	...

APPENDIX VIII—*continued.*

GOVERNMENT ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Bhagalpur Division—concld.											
Monghyr ...	Rasulpur Khas, Tauzi No. 811.	4	52	4	42	80·76	1	4	28	53·84	...
Purnea ...	Belwa Harimkhari ...	6	1,153	5	750	65·04	35	4	115	9·97	4
Do. ...	Bagmara	9	104	9	104	100	11	9	20	19·23	2
Do. ...	Lamkahi	1	108	1	108	100	3	1	15	13·8	...
Do. ...	Soharia Sobhai ...	4	37	4	37	100	1	2	10	27·02	...
Orissa Division.											
Cuttack ...	Banki	144	23,845	125	12,815	53·7	610	122	3,018	16·4	1,019
Do. ...	Town Khas Mahals ...	35	3,187	35	3,137	100·7	200	35	1,044	32·7	...
Do. ...	Cantonment Khas Mahals.	13	521	13	274	52·6	24	13	274	52·6	24
Balasore ...	Bichitrapur Khelari Jalpahr.	6	980	...	...	...	...	6	120	12·24	...
Do. ...	Nayananda Birso ...	104	11,572	...	...	...	...	...	...	...	...
Do. ...	Chandbali ...	1	130	...	...	...	...	...	...	...	...
Do. ...	Bhadrak Salt Gola ...	1	1	...	...	...	...	...	...	...	...
Angul ...	Angul	632	32,523	611	31,648	97	1,020	210	11,054	35	48
Puri ...	Kodhar	5	1,183	5	1,183	100	...	5	80	6·76	...
Do. ...	Balukhand ...	1	314	1	314	100	...	1	50	16	...
Sambalpur ...	Malguzari ...	116	6,902	116	5,783	83	808	23	1,329	19	27
Do. ...	Thikadari (Goantiahi)	811	38,687	811	37,941	98	2,069	261	11,436	29	478
Do. ...	Raiyatwari ...	16	251	16	239	95	1	4	138	53	...
Do. ...	Zamindari ...	995	24,778	994	23,711	95	1,412	168	4,903	19	212
Chota Nagpur Division.											
Hazaribagh ...	Khargdiha ...	170	1,859	53	...	...	...	26	...	...	...
Do. ...	Sarkari Hata ...	22	2,175	22	2,175	100	...	22	673	30·9	...
Do. ...	Koderma ...	101	3,155	37	1,273	40·34	161	17	621	19·68	3
Ranchi ...	Barkagarh ...	89	6,199	40	130	2	...	...	...	...	...
Do. ...	Gatis	8	651	7	32	4·9	...	...	...	...	...
Palamau ...	Palamau and Baldehri	399	1,788	399	17,288	100	...	248	11,834	68·45	12
	Total ...	4,113	2,13,221	3,703	1,65,569	78·12	6,924	1,538	67,548	31·21	2,331

APPENDIX VIII—*continued.*

WARDS' ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Manager and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants. checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna ...	Nawada	96	2,836	...	...	...	...	45	1,523	46·65	50
Do.	Bharatpur... ...	134	1,709	...	...	...	...	28	753	44·06	...
Do.	Maghra	86	1,111	...	...	...	...	31	574	51·66	...
Gaya	Maksudpur ...	75	5,731	49	2,558	44·6	14	43	2,613	45·5	11
Shahabad ...	Surajpura estate No. I	249	28,781	...	...	...	...	225	1,461	5·07	...
Do. ...	Ditto No. II	115	1,457	...	...	...	...	115	416	28·5	...
Tirhut Division.											
Saran	Chautaria... ...	36	2,411	34	1,734	71·9	101	2	25	1·0	7
Do.	Khojwa	49	4,604	29	2,679	58·1	397	3	12	·3	3
Do.	Mashrakh... ...	52	5,321	48	1,375	25·8	52	4	45	·8	13
Do.	Majhauli	68	...	...	...	...	...	...	...	...	...
Muzaffarpur ...											
Champaran ...	Bettiah	1,859	2,30,085	106	3,793	12·74	...	35,226	354	88·56	...
Saran											
Darbhanga ...											
Muzaffarpur ...											
Patna ...	Narhan	196	23,590	196	23,400	100	1,999	32	5,130	21·7	371
Monghyr ...											
Muzaffarpur ...	Mahtha estate ...	65	3,644	52	3,144	86·2	215	15	947	25·9	23
Do. ...	Sursand estate I ...	155	6,599	155	6,599	100	...	48	1,975	29·1	1
Do. ...	Ditto II ...	88	3,036	88	3,036	100	...	24	1,025	33·7	...
Bhagalpur Division.											
Santal Parganas	Pakaur	82	12,280	82	12,280	100	15	...	...	...	...
Bhagalpur ...	Sukhpur	42	4,020	42	4,020	52·3	1,507	50·4	150	7·3	...
Do. ...	Barari	556	22,072	512	17,769	80·5	...	174	4,390	19·8	...
Do. ...	Shahpur	27	1,483	27	1,483	100·	...	...	...	...	...
Do. ...	Lagma	22	1,894	22	1,894	100·	...	...	...	...	...
Do. ...	B. N. Ward estate Supaul.	88	4,668	88	4,668	100·	69	88	4,668	100·	...
Do. ...	Soubarsa	126	16,017	126	16,017	100·	...	126	16,017	100·	5
Monghyr ...	Ratan	176	4,214	176	4,214	100·	...	176	2,107	50	...
Do. ...	Shakarpura ...	21	2,845	21	2,845	100·	...	21	1,422	50	...
Do. ...	Bahadurpur ...	41	10,425	41	10,425	100·	...	41	6,215	59	...
Orissa Division.											
Cuttack ...	Dompara	28	6,686	28	6,686	100·0	...	15	458	6·8	...
Do.	Darpan	348	26,802	225	14,004	52·25	80	105	1,625	6·06	95
Balasore ...	Kaupur	125	8,335	...	...	...	...	...	...	...	...
Puri	Parikud	65	6,258	65	6,258	100·	...	30	3,559	56·00	...
Chota Nagpur Division.											
Ranchi ...	Armal	126	3,442	71	1,888	54·8	...	12	300	8·7	...
Do.	Biru	165	2,112	102	1,250	59·I	...	13	156	7·4	...
Do.	Kulnunda ...	12	298	7	160	53·3	...	3	25	8·3	...
Do.	Masmano	18	715	10	490	68·5	...	6	58	8·1	...
Do.	Bajpur	7	438	5	370	84·4	...	2	28	6·3	...
Do.	Jeria	309	3,304	190	2,010	60·8	45	25	310	9·3	...
Do.	Parba	39	170	20	85	50·0	...	2	24	14·1	...
Do.	Burkbhears ...	9	312	6	165	77·8	...	2	32	15·I	...
Do.	Jamudag	43	324	30	275	81·8	...	...	...	...	...
Do.	Oreydaru	1	187	1	122	65·2	...	...	...	...	...
Do.	Saejamdih... ...	34	752	30	612	81 3	...	4	130	17·2	...
Do.	Janampiri... ...	22	264	21	200	75·7	...	1	60	22·7	...
Do.	Loro	11	264	8	165	62·5	...	3	33	12·5	...

APPENDIX VIII—*concluded.*

WARDS' ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Manager and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Ranchi ...	Siri	79	722	46	426	59·0	...	10	52	7·2	...
Do.	Tamar	79	1,057	68	975	92·2	...	10	70	6·6	...
Do.	Burhadih	12	398	10	300	75·3	...	2	90	22·6	...
Do.	Hatma	36	657	20	375	57·0	...	5	83	12·4	...
Do.	Hazam	1	172	1	150	87·2	...	...	...	...	...
Do.	Tupudana	9	372	5	196	52·6	...	4	80	21·5	...
Do.	Loahatu	10	427	8	375	87·8	...	...	...	...	...
Do.	Mardhan	21	397	15	375	94·4	...	...	...	...	...
Do.	Redwa	4	165	3	140	84·8	...	1	25	15·1	...
Do.	Barenda	22	478	14	360	82·5	...	...	...	...	...
Do.	Chakla	5	303	4	230	75·9	...	1	30	9·9	...
Do.	Guru	3	201	2	175	87·1	...	1	23	10·9	...
Do.	Jonha	27	426	15	248	58·2	...	4	35	19·9	...
Do.	Kanabarahatu ...	12	190	10	188	98·9	...	...	...	...	...
Do.	Tarai	13	223	10	200	89·6	...	...	...	...	...
Do.	Bhargaon	6	208	4	150	73·8	...	2	40	19·7	...
Do.	Harmu	1	71	1	71	100·0	...	1	15	21·1	...
	Total ...	6,226	4,67,758	2,946	1,63,897	35·04	4,394	2,361	85,001	18·17	578

APPENDIX IX.

[*See* Chapter V, Part I of the Report.]

Result of Inspection of Boundary marks during the year ending the 30th September, 1914.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT ESTATES AND TEMPORARILY-SETTLED ESTATES.										
Patna Division.										
Gaya	117	117	1,238	1,228	1,187	1	40	1	...	...
Shahabad	148	49	781	781	779	...	*2	1	Restored at the cost of the person in fault.	...
Tirhut Division.										
Saran	8	8	300	300	300	...	...	...	...	...
Champaran	Not reported		...	8	5	3	...	3	Restored by Revision Settlement Department.	...
Muzaffarpur	17	16	66	24	24	...	(*a*)	...	...	...
Darbhanga	2	2	56	56	56	...	...	...	...	...
Bhagalpur Division.										
Bhagalpur	27	26	98	61	53	...	8(*b*)	...	...	...
Santal Parganas ...	8(*c*)	8	4,233	218	210	1	7	8	Rs. 9. Realized from village head men.	...
Orissa Division.										
Cuttack	5,682	5,682	9,667	1,481	1,461	3	17	14	Cost met from grant for maintenance of records in Orissa.	...
Balasore	1,647	1,647	7,005	3,041	2,901	11	129	88	Ditto ditto.	...
Angul and Khondmals ...	1	2	2,701	477	470	7	...	...	...	...
Puri	501	501	3,798	3,798	3,622	151	25	...	...	...
Sambalpur	1,038(*d*)	1,914	59,807	59,807	59,133	663	11	674	...	...
Chota Nagpur Division.										
Hazaribagh	3	3	2,078	940	910	30	...	30	Repaired by villagers ...	...
Ranchi	3	3	263	181	181	...	...	...	...	...
Palamau	2	2	17,125	17,125	15,098	1,486	541	2,027	Rs. 136. Met from khas mahal funds.	...
Singhbhum	1	1	2,745	2,034	1,942	92	...	...	...	...
Total ...	10,005	9,981	111,961	91,560	88,322	2,448	780	2,846		
WARDS' ESTATES.										
Tirhut Division.										
Saran	270(*e*)	247	1,818	1,485	1,441	23	21(*f*)	...	...	...
Champaran	1,692	1,692	Not known.	7,713	4,334	2,051	1,328	665(*g*)	...	...

* One mark has been diluviated by the action of the river Ganges.

(*a*) 10 pillars found missing in previous years have not yet been restored.

(*b*) Fallen into the bed of the river Kosi.

(*c*) Surveyed under Regulation III of 1872.

(*d*) Surveyed under section 27 of the Land Revenue Act of Central Provinces.

(*e*) Exclusive of the Majhauli and Hathwa Wards' Estate for which complete figures have not been received.

(*f*) One of these marks was destroyed by the action of the river Ganges.

(*g*) Stone pillars have been sent out to thikadars and Tahsildars to replace the remaining damaged or missing marks. Rs. 515-4-0 were expended during the year in the purchase of the stones.

APPENDIX IX—*concluded.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
WARDS' ESTATES—*concld.*										
Muzaffarpur	114	114	604	546	529	...	17	17	...	...
Darbhanga	196	196	1,048	1,048	1,005	1	42	...	...	...
Bhagalpur Division.										
Bhagalpur	522	519	2,366	2,311	2,193	9	109	...	...	...
Santal Parganas ...	3(h)	3	508	508	506	...	2	...	...	...
Orissa Division.										
Cuttack	2	2	420	420	410	2	8	...	...	
Chota Nagpur Division.										
Ranchi	2	2	287	287	287	...	...	...	...	...
Total ...	2,801	2,775	7,051	14,318	10,705	2,086	1,527	682	...	...
ZAMINDARI ESTATES.										
Tirhut Division.										
Saran	5,805	5,805	Not known.	17,910	16,540	742	628	...	...	...
Champaran	Not	reported.		2,326	2,178	52	86	86	Restored by Revision Settlement Department.	...
Muzaffarpur	3,609	3,609	21,818	20,878	20,688	32(i)	158(i)	49	...	...
Bhagalpur Division.										
Bhagalpur	2,929	2,928	6,464	4,970	4,745	97	128	167	90 marks were restored at a cost of Rs. 119 from allotment made from Boundary Marks Fund. The remaining 77 were restored at the cost of parties in fault.	...
Santal Parganas ...	472(h)	472	14,590	1,942	1,836	54	52	13	2 damaged stones were repaired at a cost of Rs. 2-8 realized from mandals concerned. The other marks were repaired by the villagers.	...
Chota Nagpur Division.										
Ranchi	1	1	6,346	6,064	6,057	2	5	2	...	...
Manbhum	2	2	1,640	750	495	170	85	26	Rs. 13. Met from grant from Boundary Marks Fund.	...
Singhbhum	2	2	4,663	4,663	124	6	19	...	...	...
Total ...	12,820	12,819	55,531	59,503	52,663	1,165	1,161	343		
GRAND TOTAL ...	25,626	25,575	174,533	105,381	151,690	5,699	3,468	3,871		

(h) Surveyed under Regulation III of 1872.

(i) Exclusive of 353 marks found missing and damaged in previous years.

N. B.—The figures against "Total" and "Grand Total" in Columns 2 to 6 are not complete for want of figures in certain cases.

APPENDIX X.

Statement showing progress of Survey and Settlement work in the Province by districts and divisions up to 30th September, 1914.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September, 1914, (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September, 1914, (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	2,002	119	2,121	1,947	119	2,066	55	...	55	...	...	...
Gaya	4,569	92	4,661	2,911	92	3,003	30	...	30	1,628	...	1,628
Shahabad	4,102	211	4,373	3,783	211	4,194	142	...	142	...	...	37
Divisional Total ...	10,733	422	11,155	8,841	422	9,263	227	...	227	1,665	...	1,665
Tirhut Division.												
Saran	2,633	41	2,674	2,430	41	2,480	194	...	194	...	...	...
Champaran	3,528	3	3,531	3,247	3	3,250	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,308	40	3,348	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	12,473	115	12,588	11,991	44	12,035	482	71	553	...	...	...
Bhagalpur Division.												
Monghyr	3,742	95	3,837	3,722	95	3,817	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	203	4,934	4,731	14	4,745	...	249	249	...	...	...
Santal Parganas	4,087	1,383	5,470	3,983	1,383	5,366	...	...	...	104	...	104
Divisional Total ...	16,676	1,783	18,459	14,152	1,534	17,686	420	249	669	104	...	104
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	385	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	669	669	...	233	233	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	...	463	463	...	375	375
Divisional Total ...	2,238	11,526	13,764	666	9,655	10,321	1,416	696	2,112	156	1,175	1,331
Chota Nagpur Division.												
Hazaribagh	6,857	164	7,021	6,850	56	6,906	...	52	52	7	56	63
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau	4,231	613	4,844	1,172	...	1,172	28	319	347	3,031	204	3,235
Manbhum	3,872	275	4,147	934	...	934	...	...	...	2,938	275	3,213
Singhbhum	2,572	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	24,636	3,007	27,643	18,395	1,269	19,664	265	1,113	1,378	5,976	625	6,601
Provincial ...	66,756	16,853	83,609	56,045	12,924	68,969	2,810	2,129	4,939	7,901	1,800	9,701

N. B.—The areas shown in this Appendix are approximate.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

[*See* Chapters II to IV,

District.	Description of work.	Number of villages. [A]	Estimated area to be dealt with (in square miles). [A]	Year of commencement of operations.	Area surveyed (in square miles). During the year under report.	Area surveyed (in square miles). Total including previous seasons.	Balance remaining to be surveyed.
1	2	3	4	5	6	7	8
I.—Traverse Surveys.							
District Surveys.							
Palamau	Traverse ...	658	4586	October 1912	*1,467	2,673	1913
		100 (Khalsa)					
		34 blocks					
Gaya	Ditto	2177	3844	October 1911	1,304	3,814	...
Miscellaneous Surveys.							
Santal Parganas (Sauria Paharia Hills.)	Ditto	521	225	October 1912	176	225	...
Ganges Diara (Special) ...	Ditto	...	...	Nov. 1913	...	...	...
Bhagalpur—Tintanga	Ditto	...	...	Mar. 1914	...	...	...
Monghyr—Bhawanandpur and Qamaruddinpur.	Ditto	...	...	Do.	...	...	...
Darbhanga—Baspur Patasia ...	Ditto	...	...	Feb. 1914	...	...	...
Patna—City Survey	Ditto	...	...	Dec. 1913	...	...	...
Singhbhum—Saraikela Porahat ...	Ditto	...	...	Nov. 1913	...	...	...
Nazari Bhimbandh—Monghyr ...	Ditto	...	...	Do. ...	...	...	...
Patna—Barh Municipality ...	Ditto	...	...	Jan. 1915	...	...	...
Saran—Sitab Diara	Djtto	...	...	Feb. 1914	...	...	...
Gaya—Municipality	Ditto	...	...	May 1914	...	...	...
II.—Bihar and Orissa Drawing Office.							
Standard Mapping Section.							
Shahabad	Fair mapping ...	(a) O 63 / 8,11,12,14,15,16	See next page.				
Patna		P 63 / 5.9,10.13,14					
Gaya		K 64 / 16 ; L 64 / 13					
Monghyr		O 64 / 4,6,7.8,9,10 ...					
Ranchi		O 64 / 11,12,14.15,16					
Hazaribagh		P 64 / 1,5 ; G 72 / 16					
Manbhum		C 73 / 2,3 ...					
Purnea		I 73 / 9,13 ; M 73 / 1,5					
Singhbhum		(b) C 72 / 2,4,6,7,10,11					
Palamau		A 73 / 15 ; E 73 / 3.4,5,7					
Sambalpur		E 73 / 8,9,12,16 ...					
Santal Parganas		(c) C 72 / 3.8,12,15,16					
Raipur (Central Provinces.) ...		D 72 / 1.2.5.6,7,8 ...					

A—In the portion of the Appendix relating to Bihar and Orissa Drawing Office, the figures in columns 3 and 4

XI.

together with the expenditure incurred during the year ending 30th September 1914.

Part II of the Report.]

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
37,812	850	38,662	26·36	75,418	3,858	79,276	29·66	*Includes 269 square miles of Khalsa area.
43,330	975	44,305	31·79	115,508	9,179	1,24,687	32·44	
10,692	241	10,933	62·48	18,858	894	19,752	87·79	
6,508	146	6,654	...	19,897	2,558	22,455	...	
94	2	96	...	94	2	96	...	Cost met from Provincial grant.
326	7	333	...	326	7	333	...	Half the cost met from Provincial grant and the other half from deposits.
168	4	172	...	168	4	172	...	
3,573	80	3,653	...	6,863	343	7,206	...	Cost met from deposits.
853	19	872	...	853	19	872	...	Half the cost met from Provincial grant and the other half from deposits.
39	1	40	...	39	1	40	...	Cost met from deposits.
628	14	642	...	628	14	642	...	
530	12	542	...	530	12	542	...	
704	16	720	...	704	16	729	...	
								(*a*) The following sheets were sent for publication only.
See next page.				See next page.				
								(*b*) The following sheets were sent for publication and revision survey.
								(*c*) The following sheets are in various stages of compilation.

represent respectively the total sheets and the number dealt with during the year.

District.	Description of work.	Number of villages [A.]	Estimated area to be dealt with (in square miles). [A.]	Year of commencement of operations.	Area surveyed (in square miles).		Balance remaining to be surveyed.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Benares ... } United Provinces.	FAIR MAPPING ...	72 D/9,10,11,12,15,16 72 G/3,4,8,12 ... 72 H/3,4,6 to 16 ... 73 A/4,8,11,13,16 73 I/1,2,3,5 ... 73 J/1,2,3,5,6,7,10 73 J/11,12,14,15,16 78 B/6,8 ... 64 K/12 (d) ; 64 L/9 73 A/12 ; 73 E/1,2,6,10 73 E/11,13,14,15 63 P/7,8,11,12,15,16 (e) 64 M/9,10,13,14,15 72 D/13,14 ; 72 H/1,2,5 73 A/1,2,5,9 ... 73 I/4,6,7,8,10,11 73 I/12,14,15,16 ... 73 J/9 ...	147	...	...	...	...
Mirzapur ...							
Ghazipur ...							
Ballia ...							
Darjeeling ... } Bengal ...							
Jalpaiguri ...							
Dinajpur ...							
Midnapore ...							
Burdwan ...							
Bankura ...							
	(1) 55 uncorrected proofs were examined.	...					
	(2) Fiscal limits and cultivations were coloured on 110 unpublished black prints.	...					
	(3) 6 published prints of Standard and District Maps were coloured as office copies.	...					

A—In the portion of the Appendix relating to Bihar and Orissa, Drawing Office, the figures in columns 3 and 4

XI—*continued.*

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
								(*d*) The following sheets are practically ready but held up for certain references.
37,246	...	...	...	529,862	...	...	...	
								(*e*) The following sheets remain to be taken up.

represent respectively the total sheets and the numbers dealt with during the year.

APPENDIX

District.	Description of work.	Number of villages [A.]	Estimated area to be dealt with (in square miles). [A.]	Year of commencement of operations.	Area surveyed (in square miles).		Balance remaining to be surveyed.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Provincial Drawing Section.							
	Compilation of detailed thana maps of thanas—						
Puri	Puri	11	3	1912-13	...	...	...
Balasore	Balasore	9	4	1912-13	...	...	...
	Basta						
	Baliapal						
	Jellasore						
South Bhagalpur	Sultanganj	19	9	1912-13	...	...	...
	Colgong						
	Bhagalpur						
	Katoria						
	Banka						
	Amarpur						
South Monghyr	Monghyr	18	13	1912-13	...	...	...
	Jamalpur						
	Kharagpur						
	Jamui ...						
	Chakai						
	Surajgarha						
	Shiekhpura						
	Sikandra						
	Lakhisarai						
Patna	Dinapore	Unknown	3	1913-14	...	...	...
	Maner						
	Barh						
Sambalpur	Laikera	22	7	1913-14	...	...	...
	Katarbaga						
	Jharsogra						
	Rampella						
	Barpali						
	Bijepur						
	Mura						
Santal Parganas	Compilation of preliminary thana maps of subdivision Rajmahal.	28	2	1909-10	...	...	...
Purnea, Bhagalpur	Compilation of skeleton District maps.	2	2	1913-14	...	...	...
Monghyr, Santal Parganas ...	Compilation of District maps.	4	4	1913-14	...	...	...
Monghyr	Compilation of subdivision map of Begusarai.	1	1	1913-14	...	...	...

A—In the portion of the Appendix relating to Bihar and Orissa Drawing Office, the figures in columns 3 and 4

XI—*continued.*

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
								8 sheets were completed previously.
								5 sheets were completed previously.
								9 sheets were completed previously.
(a)8,320	...	...	...	54,497	...	...	...	(a) Includes Rs. 1,465, cost of reproduction. 5 sheets were completed previously.
								26 sheets were completed previously.
17	...	...	...	17	...	...	...	
2,073	...	...	...	9,839	...	...	...	
19	...	...	...	19	...	...	...	

represent respectively the total sheets and the numbers dealt with during the year.

District.	Description of work.	Number of villages [A.]	Estimated area to be dealt with (in square miles). [A.]	Year of commencement of operations.	Area surveyed (in square miles).		Balance remaining to be surveyed.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Saran, Patna, Shahabad, Darbhanga, Muzaffarpur.	Compilation of 4" Ganges Diara maps for publication of the following sheets:— 72 C13 & G1 / 14 ... ... 72 C14 & G2 / 15,16,17 ... ... 72 G1 & 2 / 18, G3 / 19,20 ... 72 G2,3,6 & 7 / 24 ... ... 72 G10 / 32,35, G10 & 11 / 33,36 ... 72 G11 / 34,37, G15 / 45 ... 72 G10,11, 14 & 15 / 40 ...	122	16(a)	1908-09	...	...	...
	Badars	...	...	...	...	...	...
	Map Records	...	...	...	...	...	...
Map Reproduction Section.							
Gaya	Reproduction of attestation copies of village maps.	6,138	3207 / 6138	1912-13	...	...	...
Champaran	Ditto	2,325	2325 / 2325	1913-14	...	...	...
Shahabad	Reproduction of final copies of village maps.	7,613	163 / 7483	1910-11			
Gaya	Ditto	3,047	519 / 519	1913-14			
Puri (Khurda Government Estate.)	Ditto	4,286	4286 / 4286	1913-14			
Cuttack	Ditto	7,223	1 / 7223	1910-11	...	...	...
Champaran	Ditto	2,383	2156(d) / 2156	1913-14			
Cuttack	Ditto	1,475	1475 / 1475	1913-14			
Champaran	Reproduction of blue prints of village maps.	5,474	2565 / 5474	1912-13			
	Reproduction of trijunction mark maps.	154	34 / 106	1910-11	...	...	...
	Reproduction of small scale mujmilli maps and other miscellaneous maps.	Not known ...	100 / Notknown	1913-14	...	...	...
	Reproduction of Survey and Settlement Index maps for Annual Report.	2	2 / 2	1913-14	...	...	...
	Reproduction of Preliminary Thana maps.	79	25 / 79	1910-11	...	...	...
	Extra Departmental Work	...	...	...	...	...	...

A—In the portion of the Appendix relating to Bihar and Orissa Drawing Office, the figures in columns 3 and 4

XI—*concluded.*

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
(b)4,714	...	...	...	15,361	...	...	...	(a) In addition to these, 37 sheets were sent to the Traverse Party for laying down of special reference pillars. 33 sheets of 2" thanawar trijunction mark maps were also prepared as mujmilis for use of traversers. 89 corner points were computed and the projection, of 39 sheets, *i.e.*, sheet Nos. 84 to 123 were completed. (b) Includes Rs. 1,271, cost of reproduction calculated on the number of pulls, *i.e.*, colour plates.
2,470	...	...	...	51,657	...	...	...	
6,832	...	...	...	52,562	...	...	...	
2,322	...	...	...	29,067	...	...	...	In column 4 the numerator denotes the sheets dealt with during the year and the denominator those dealt with up to date.
(c)	...	...	...	...	...	...	...	(c) Cost paid by Settlement Officer by book debit.
42,720	...	...	...	669,472	...	...	...	(d) Reproduction of maps of last settlement for sale on Collector's requisition.
159	...	...	...	16,654	...	...	...	
771	...	...	...	782	...	...	...	
627	...	...	...	1,564	...	...	...	
507	...	...	...	637	...	...	...	
7,370	...	...	...	28,062	...	...	...	

represent respectively the total sheets and the numbers dealt with during the year.

APPENDIX XII.

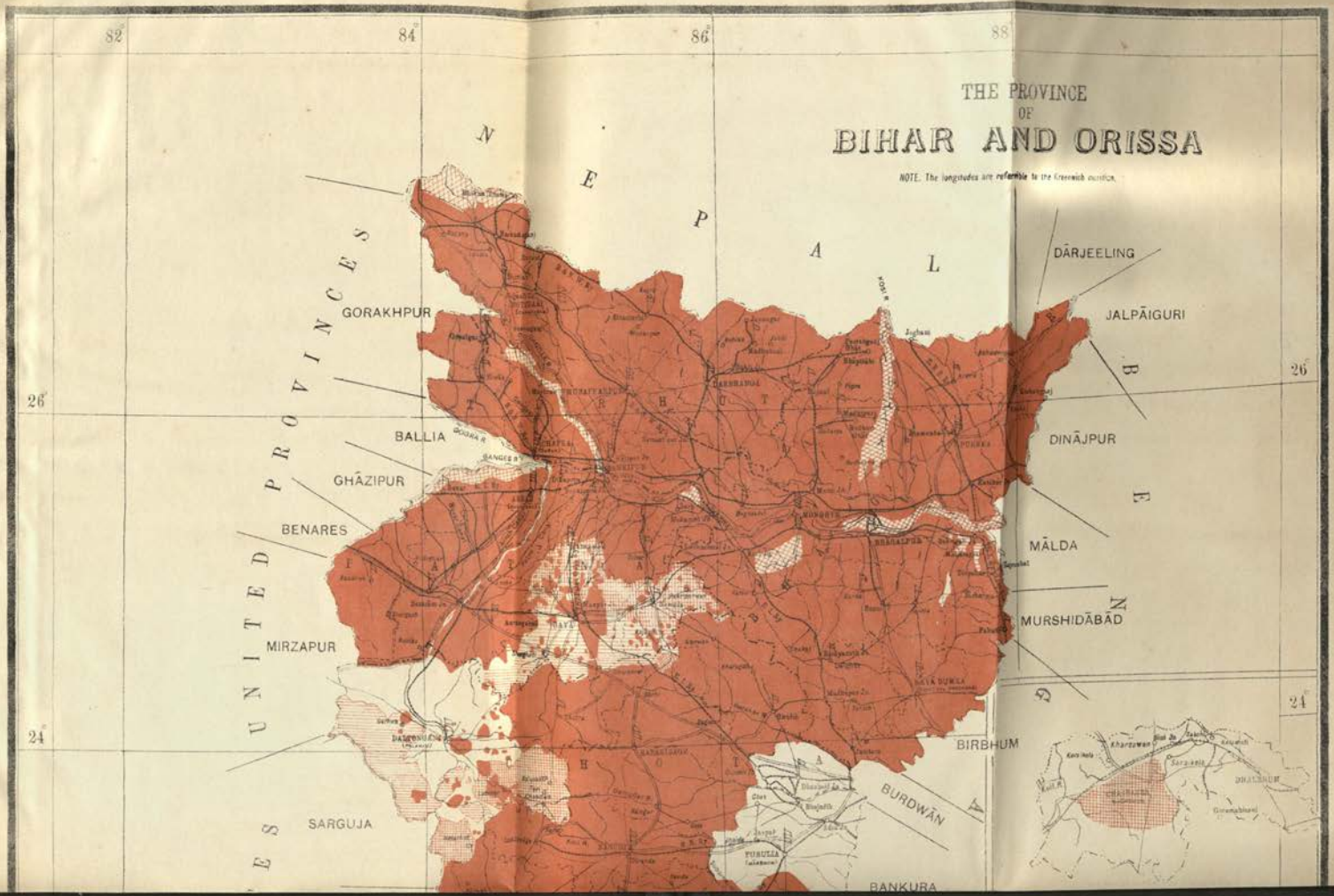
Statement showing the cost per copy of different classes of Maps reproduced in the Bihar and Orissa Drawing Office during the Survey year 1913-14.

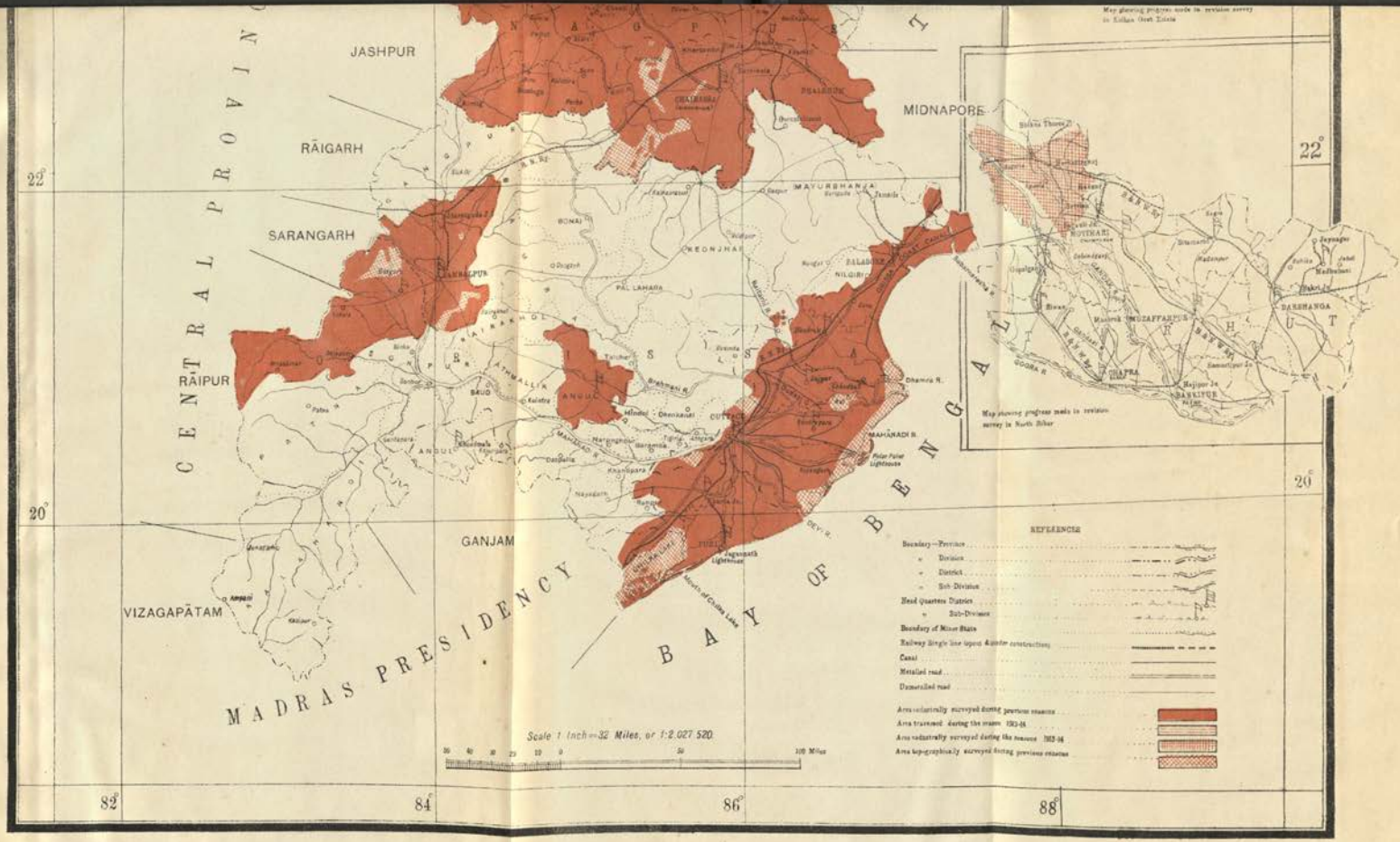
[*See* Chapter IV, Part II of the Report.]

Class of work.	Number of copies printed.	Direct charge with stationery.	Cost per copy.	Direct charge with share of General Section.	Cost per copy.	Direct charge with share of General section and share of control.	Cost per copy. (reproduction only).
1	2	3	4	5	6	7	8
		Rs.	Rs. a. p.	Rs.	Rs. a. p.	Rs.	Rs. a. p.
1. Preliminary reproduction of maps for attestation purposes, including one copy retained for the Standard Mapping Section.	16,051	2,283	0 2 3	2,733	0 2 9	2,829	0 2 10
2. Final printing of village maps, including two blue prints of each sheet.	169,011	38,287	0 3 7	46,787	0 4 5	48,424	0 4 7
3. Final Thana Maps	2,450	1,226	0 8 0	1,488	0 9 9	1,540	0 10 1
4. Preliminary Thana Maps ...	2,692	464	0 2 9	576	0 3 5	596	0 3 7
5. Trijunction Mark Maps ...	808	147	0 2 11	180	0 3 7	186	0 3 8
6. 2" Reductions	1,600	280	0 2 10	342	0 3 5	354	0 3 6

B. & O. G. P. (D. L. R.) No. 50—450—28-1-1915—F. R.

SURVEY MAP


THE PROVINCE
OF
BIHAR AND ORISSA
NOTE. The longitudes are referable to the Greenwich meridian.
82°
84°
86°
88°
26°
24°
N E P A L
UNITED PROVINCES
GORAKHPUR
BALLIA
GHĀZIPUR
BENARES
MIRZAPUR
SARGUJA
DĀRJEELING
JALPĀIGURI
DINĀJPUR
MĀLDA
MURSHIDĀBĀD
BIRBHUM
BURDWĀN
BANKURA
BENGAL
DHALBHUM



Zinco by Vandyke process in S. R. O. D. O.

BOARD OF REVENUE, BIHAR AND ORISSA.

SETTLEMENT SECTION.

No. 17-256—3.

FROM

H. K. BRISCOE, ESQ., I.C.S.,
OFFG. SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,

TO

THE SECRETARY TO THE GOVERNMENT OF BIHAR
AND ORISSA, REVENUE DEPARTMENT.

Dated Bankipore, the 15th February 1915.

Member-in-Charge :
THE HON'BLE MR. W. MAUDE, C.S.I., I.C.S.

SIR,

I AM directed to submit the Annual Report on the Survey and Settlement operations under the control of the Director of the Department of Land Records and Surveys, Bihar and Orissa, for the year ending 30th September 1914.

2. Under Government order No. 5246R., dated 17th June 1914, the letter-press of the report has been limited to thirty pages, and this restriction has been largely responsible for the non-receipt by the Board of the report, as finally printed, till the 8th February, since the Director's original report exceeded the limit, and the Board had no option but to require its curtailment, though it contained nothing which was not of interest and utility.

3. The programme of both the Survey and Settlement branches was, generally speaking, carried out fully with the exception, firstly, of the case work after final publication in Hazaribagh (paragraph 42), and secondly, of the cadastral and survey preliminary record-writing in respect of the Government estates area in Palamau (paragraph 54) and 180 square miles of quasi-diara lands in the Champaran revision operations (paragraph 63) owing to the necessity in either case for retraverse.

The failure to complete the programme was in all cases due to special causes and not to a breakdown of the arrangements.

4. *Paragraph* 12 *of the Report*:—Experience has shown that the present procedure laid down in the existing Chapter IIA of the Cess Act is expensive and inconvenient. Government in their order No. $\frac{7577R.}{IVC-10}$, dated the 15th November 1913, have already conveyed general approval of the Board's proposals for improving the procedure and it is understood that the necessary amendments of the Cess Act will be submitted to the Provincial Legislative Council during the current session.

5. *Paragraphs* 24 *and* 70. *Adopted stations*:—In paragraph 5 of Mr. Hubback's letter No. 17—178-5, dated 26th January 1914, forwarding the Survey and Settlement Report for the year ending 30th September 1913, the Board reported that enquiry was being made as to what steps were proposed to mark theodolite stations in Gaya more permanently.

The Director reported in April last that stones had been substituted for wooden pegs for this purpose, and he has also adopted a system of fixing other well-marked points, such as isolated trees, temples, mosques, milestones, etc., as explained in the enclosure to my letter No. 17—64-4, dated the 27th April 1914, to Government, which should be easy to pick up and utilise as fixed points in any future surveys.

6. *Paragraph* 32:—The Board has sanctioned formally, under rule 47 of the Government rules under the Bengal Tenancy Act, the inclusion in the record-of-rights in Bihar of an irrigation record which has been drawn up in two forms, one for schemes which affect one village only, and the second for larger schemes which cover more than one village.

7. *Paragraph* 33:—The Board awaits a further report regarding the results obtained by use of Mr. Hubback's small equilateral triangle, but it is interesting to note that in a recent experiment on the Bankipore Agricultural Farm, where the total actual outturn of several acres was readily obtainable, the old system based on an area of one-tenth of an acre yielded results which were more accurate in a marked degree.

8. *Paragraph* 37:—The Board has lately consulted Commissioners of Divisions and the Director of Land Records and Surveys regarding the revision of certain rules which were framed by the Bengal Board in 1912 primarily for the guidance of Assistant Settlement Officers, but secondarily to serve as a model for other officers also, in disposing of commutation cases.

Several valuable suggestions have been received, and the Board hopes to issue shortly a revised set of rules which should tend to improve, so far as the mere prescription of rules can do, the administration of this very important branch of work. In the opinion of several officers of great experience in revenue work the results of commutation cases as carried out hitherto by the Settlement Department have not been by any means uniformly successful. The question will be further considered by the Board and it is hoped to submit a report shortly to Government.

9. *Paragraphs* 48-50 *and* 59:—The Director's remarks bear out the comment made in paragraph 93 of the Board's Report on the Land Revenue Administration of the Province for the year 1913-14, regarding the non-recognition in the North-west portion of the Hazaribagh district of the provisions of the Chota Nagpur Tenancy Act designed for the protection of tenants, but it is understood that the latter appear now to be realising the utility of the record.

The Board has obtained from the Director of Land Records and Surveys a list of the Chatra landlords referred to in paragraph 49, and a copy has been supplied by the Settlement Officer to the new Subdivisional Officer of Chatra with a view to a watch being kept on the conduct of these zamindars. A further report regarding agrarian conditions in Palamau, where, from paragraph 59 of the report, it appears that many landlords are behaving unscrupulously and oppressively, will also be awaited with interest.

10. *Paragraphs* 67, 70 *and* 72:—Champaran being the first Bihar district to come under revision operations, the work essentially partakes somewhat of the nature of an experiment. The lines adopted appear to be producing very satisfactory results, but the Board is glad to see that there is no tendency to consider that finality is within easy reach.

It will be interesting to learn whether elsewhere changes in the old record will be as numerous as in the area hitherto dealt with in Champaran, in respect of which, as Mr. Reid has shown, special influences have been at work in the Tribeni Canal and two railway extensions.

11. *Paragraphs* 123-124:—The result of the test instituted into the accuracy of the Ganges Diara maps now under preparation is very satisfactory, as this work is now nearing its close and it would have been a matter for grave regret had the system adopted been found at this late stage to give unreliable results.

12. The important question of costs of operations in the various districts and branches concerned appears to be engaging the careful attention of the Director.

13. The Board desires to bring once again under the notice of Government the admirable manner in which Mr. Reid, as Director, has controlled the work both of the Survey and of the Settlement Departments. The Hon'ble Member concurs also in the Director's appreciation of the work done by the officers referred to in paragraphs 99 and 156 of the Report.

I have the honour to be,

SIR,

Your most obedient Servant,

H. K. BRISCOE.

Offg. Secretary.

B. & O. G. P. (Bd. of Rev.) No. 162—500+1—18-2-1915.—H. P. G.

No. $\frac{1521}{S\text{-}48}$R.

GOVERNMENT OF BIHAR AND ORISSA.

REVENUE DEPARTMENT.

LAND REVENUE BRANCH.

RESOLUTION.

Dated Ranchi, the 8th March 1915.

READ—

The Survey and Settlement Report for the year ending the 30th September 1914, and the remarks recorded thereon by the Board of Revenue.

The Survey and Settlement Report, which together with the Board's remarks was due to the Local Government on the 15th January, was not received until the 24th of February. This delay was due to the fact that the report prepared by the Director of Land Records and Surveys exceeded the recently prescribed limit of thirty pages and had to be curtailed before transmission. The present page limit was prescribed by the Government of India during the year, and in accordance with their wishes some of the previous appendices which were of little practical use were also abolished. The report accordingly consists of thirty pages and twelve appendices.

2. Mr. J. Reid was in charge of the combined Survey and Settlement Departments throughout the year.

3. The main work of the Survey Department consisted of traverse survey in the districts of Gaya and Palamau. The total area surveyed during the year amounted to 2,592 square miles, excluding 269 square miles of Government estates in the latter district which were partially retraversed. The Department also completed various miscellaneous items of work, including the survey of the remainder of the Sauria Paharia tract in the Santal Parganas, the traverse and preparation of special maps for an area of 800 square miles in the Ganges *diara*, and the erection of reference pillars in the districts of Patna, Bhagalpur, and Monghyr.

The traverse cost rates in Gaya and Palamau were Rs. 31·66 and Rs. 25·77 a square mile against Rs. 32·54 and Rs. 33·68, respectively, in the previous year. The reduction of cost in Palamau is noteworthy and the Lieutenant-Governor in Council is satisfied that the work in both districts was carried out with due regard to economy.

4. Since the close of the year, the Bihar and Orissa Drawing Office has been transferred from Calcutta to Patna and located in a portion of the old opium buildings at Gulzarbagh. The work of the office continued satisfactory in regard both to quality and outturn. The cost rates of the various classes of reproduced maps were higher than in the previous year, owing partly to a decrease in the number of copies and partly to an increase in the pay of the permanent staff. The incidence of the cost rates in this branch of work has lately been under the consideration of the Director.

5. The work of the Settlement Department lay in eleven districts and, in addition to the ordinary programme of cadastral survey and the preparation of the record-of-rights, included the settlement of land revenue in Government estates, the settlement of fair rents and commutation of produce-rents in permanently-settled estates, the revision operations in the district of Champaran, and the maintenance of land records in the Orissa districts. The total area cadastrally surveyed during the year was 4,946 square miles, while records were finally published for 3,950 square miles. The total area for which a record-of-rights has now been completed by the Settlement Department is 65,296 square miles.

6. In Gaya the programme of work was completed, and in addition twelve villages appertaining to Government estates, which had been previously surveyed and were excluded from the scope of the settlement operations, were topographically surveyed.

In order to ensure rapid and accurate revision of maps, steps were taken during the year to mark the theodolite stations in Gaya more permanently by the substitution of stone for wooden marks and to link them up with fixed objects which have been accurately surveyed in position.

The chief feature of the agrarian situation in Gaya, as in Patna and South Monghyr, is the wide extension of the produce-rent system, regarding which interesting details are given in the report. The settlement of these three districts has provided the Local Government with materials which will be invaluable in considering whether the produce-rent sections of the Bengal Tenancy Act require alteration when the Act next comes up for amendment. The irrigation question in Gaya is closely connected with that of produce-rents and is a fruitful source of disputes. A complete record of irrigation rights has, however, now been prepared and will, it is hoped, prove of great value to the administration of the District.

7. In Shahabad the programme of work consisting of suits and applications under sections 104, 105, 106, and 40 of the Bengal Tenancy Act was finished in the northern, and commenced in the southern thanas. The slight decrease in the revenue settled for temporarily-settled estates is explained by the fact that the bulk of the rent settlement lay in pargana Chausa in Buxar, where in 71 estates the assets were found to have decreased, while in those estates in which the assets had increased the percentage assessed as revenue was reduced. The percentage of assets formerly taken as land revenue in Chausa pargana was too high and its reduction to a more moderate level has necessarily caused a slight fall of revenue. Out of Rs. 6,00,014, the total demand of settlement costs for the district, Rs. 5,59,073 were realised during the year, leaving an outstanding balance of Rs. 40,941.

8. In Chota Nagpur, cadastral survey and settlement operations were continued in the districts of Hazaribagh, Palamau, Manbhum, and Singhbhum. In Hazaribagh the whole programme of work was completed with the exception of some recess work which has been cleared off since the close of the year. A cess revaluation roll was prepared under Chapter IIA of the Bengal Cess Act, 1880, *pari passu* with the attestation of the settlement records.

The Director has drawn attention to the ascendancy established by the landlords of north Chatra in the Hazaribagh district over their tenants, which at first prevented the settlement officers from obtaining information without the acquiescence of the landlords, and rendered the attestation proceedings extremely difficult. The establishment of a new subdivision at Chatra will, it is hoped, ensure the enforcement of the record-of-rights now prepared.

9. The inception of survey and settlement operations in the district of Palamau was sanctioned by the Government of India in their letter No. 866-263-2, dated the 19th July 1912. The first part of the programme of work was completed but the revision of the records and maps of the Government estates could not be carried through as the original maps were found to be incapable of revision and a *de novo* cadastral survey was impracticable pending a fresh traverse survey of the area.

10. In Singhbhum, the resettlement operations of the Kolhan Government estate continued and the programme of work, which consisted of the cadastral survey and preliminary record-writing (field and recess) of 636 square miles, was completed.

11. The revision operations in Champaran have a special interest as being the first of their kind in North Bihar and should afford much useful knowledge of the changes in agricultural conditions that have occurred in the last twenty years. The programme of work, which turned out to be heavier

than had been expected was completed, with the exception of 180 square miles of quasi-*diara* land bordering on the river Gandak in which the obliteration by the river of all land and boundary marks necessitated resurvey. The technical difficulties of the operations have been skilfully surmounted. The question of the relations between landlords and tenants in certain areas of the Champaran District is under the special consideration of the Local Government and it is hoped that the light which will be thrown on the agricultural conditions of the district by the revision operations will render possible a satisfactory solution of the present difficulties.

12. The experimental maintenance of records in Orissa was continued in the districts of Cuttack and Balasore as in the previous year. The difficulties of carrying out maintenance on efficient lines were considerably enhanced by the non-attendance of landlords and tenants, and the operations have now reached a stage when they should either be suspended or placed on a legal basis.

13. The work of the Land Records establishment in Sambalpur was on the whole satisfactory. Towards the close of the year, the Local Government sanctioned a scheme for the preparation of maps more accurate than those now used by the local patwaris and for the training of the patwaris under the supervision of a Traverse Assistant.

The record of mutations in Government and Wards' estates continued to be unsatisfactory, and in some instances no reason has been assigned for the low percentage of mutations. Maintenance of boundary marks generally continued to receive attention and the work of inspection and restoration was adequately performed.

14. Towards the close of the previous year the Lieutenant-Governor in Council passed orders amplifying and extending the course of training in survey and settlement work for junior Civilians and Assistant Superintendents of Police. In accordance with the new arrangements junior officers will ordinarily be deputed to the Settlement Department for a period of five months and a half during the cold weather of their second year in India. The results of the past year have been successful and the Lieutenant-Governor in Council learns with satisfaction that the officers under training all derived increased benefit from the more complete course.

15. The thanks of the Local Government are due to Mr. Reid, for his efficient and vigorous administration of the combined Survey and Settlement Departments throughout the year, and His Honour in Council desires also to acknowledge the good services rendered by Messrs. J. D. Sifton, E. L. Tanner, and J. A. Sweeney who were in charge of the Major Settlements and of the other officers whose work has been commended in the Report.

ORDER.—Ordered that the Resolution be published in the *Bihar and Orissa Gazette* and that a copy of it with copies of the Report and of the Board's remarks thereon be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

H. McPHERSON,

Secretary to Government.

MEMO. No. $\frac{1522\text{-}23}{S\text{-}48}$R.

Dated Ranchi, the 8th March 1915.

Copy, with copy of the report, forwarded to the Surveyor-General of India Appointment Department for information (with special reference to paragraph 15 of the Resolution.)

(To Appointment only.)

By order of the Lieutenant-Governor in Council,

E. H. JOHNSTON,

Offg. Under-Secretary to Government.

MEMO. No. $\frac{1524}{S\text{-}48}$R.

Dated Ranchi, the 8th March 1915.

Copy forwarded to the Secretary to the Board of Revenue, Bihar and Orissa, for information.

By order of the Lieutenant-Governor in Council,

E. H. JOHNSTON,

Offg. Under-Secretary to Government.

P. & O. G. P. (Rev.) No. 82—450+5—12-3-1915—F. T. B.

ANNUAL REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

UNDER THE CONTROL OF

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS,

BIHAR AND ORISSA,

FOR THE

YEAR ENDING 30TH SEPTEMBER, 1916.

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REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

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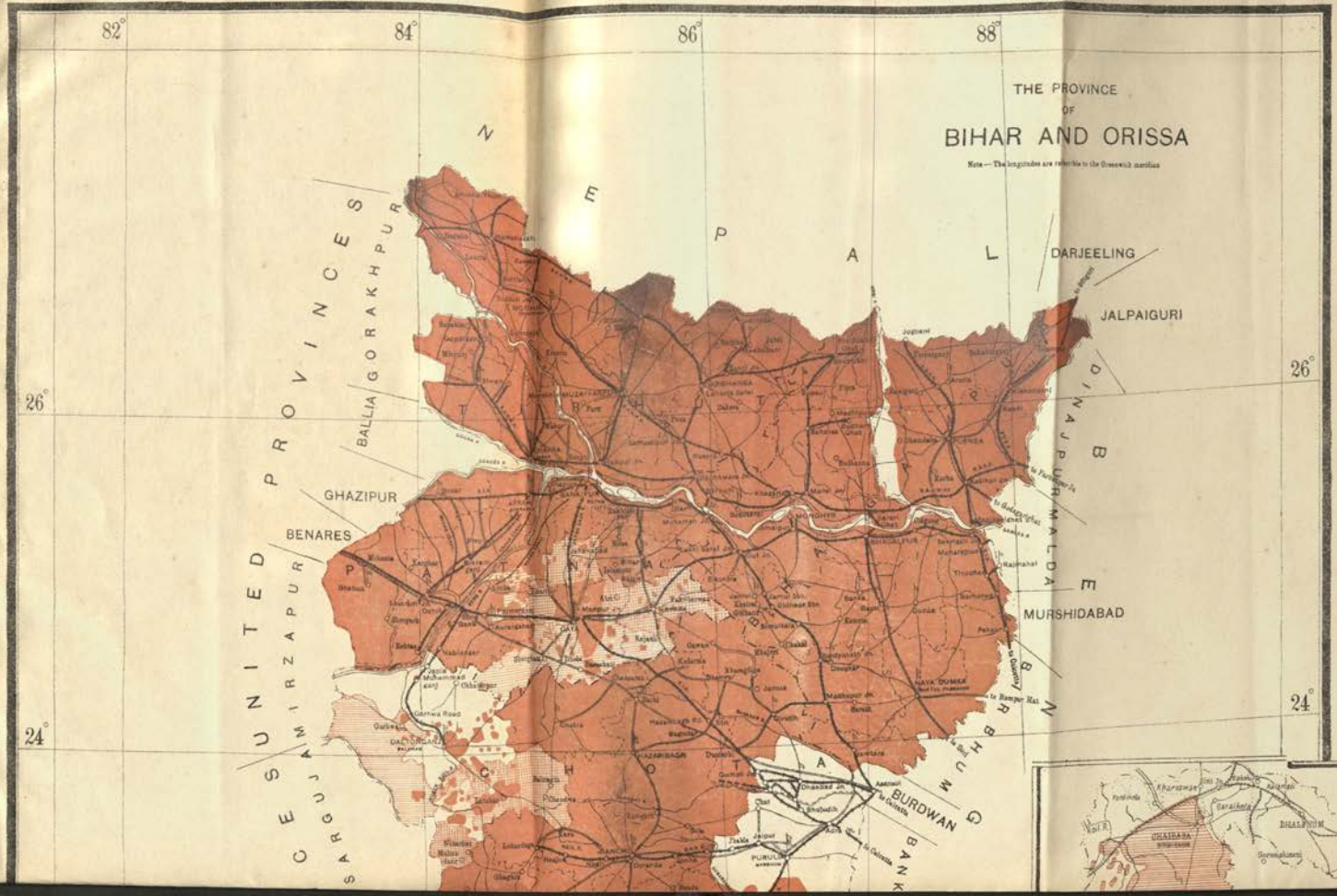
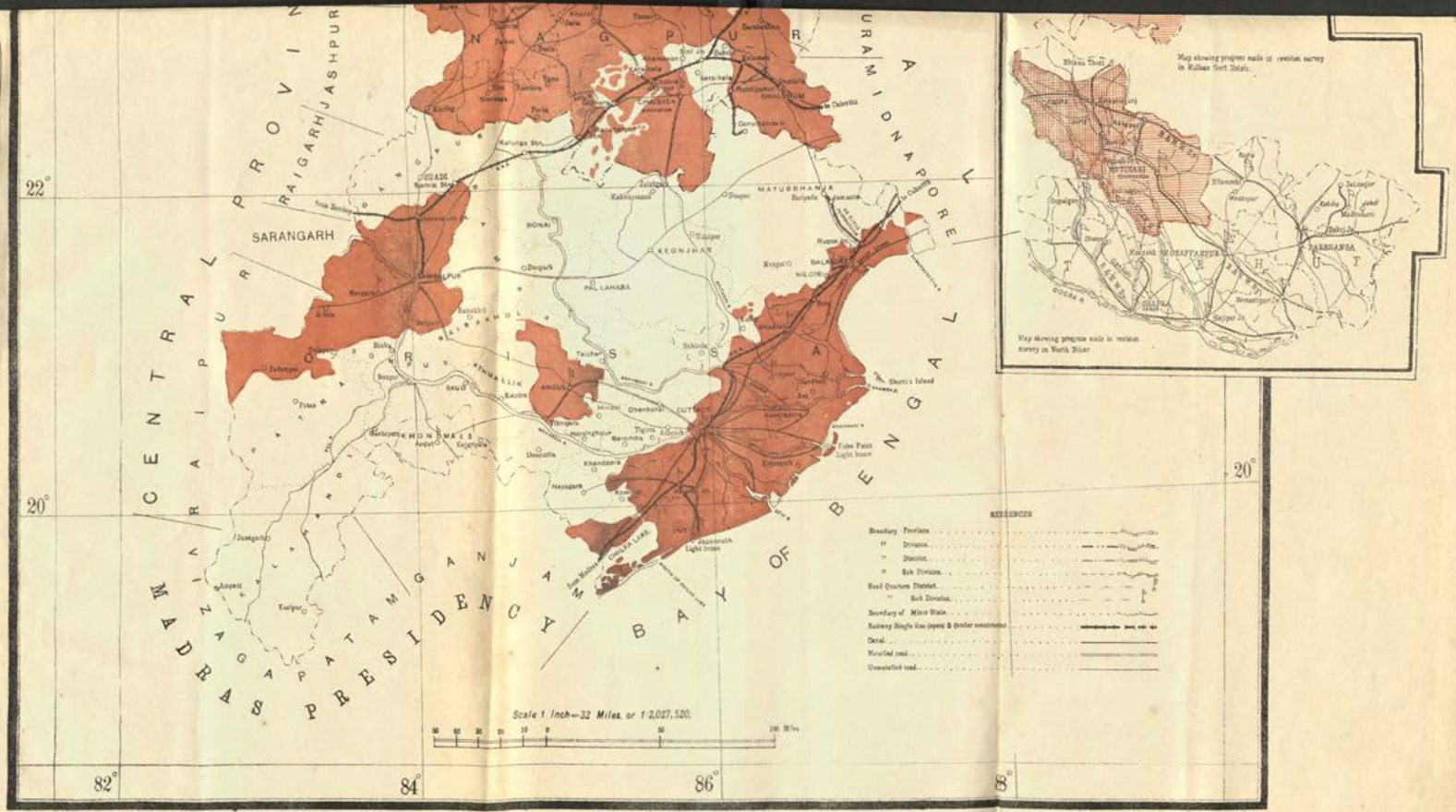
SETTLEMENT MAP





Area the records of which were finally published prior to the year ending 30th September 1916

Area the records of which have been finally published or completed during the year ending 30th September 1916

Area in which the preparation of settlement records was in progress but not completed during the year ending 30th September 1916

Compiler & Zincographer in the S & G D D

DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

No. 250-*T.*

FROM

P. W. MURPHY, ESQ., I.C.S.,
OFFG. DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA,

To

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,
LAND REVENUE DEPARTMENT.

Dated Ranchi, the 14th December, 1916.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted under the supervision of this Department during the year ending the 30th September, 1916.

PART I.—CADASTRAL SURVEY AND SETTLEMENTS.

CHAPTER I.—GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operation : original and revisional.

2. Survey and Settlement operations were in progress during the year in six districts of the Province. In original operations the area cadastrally surveyed comprised 1,147 square miles and in revisional operations 722 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 1,868 square miles, attested in 4,779 square miles and finally published in 4,376 square miles. The rents of 32,478 tenants were settled. The expenditure of the year amounted to Rs. 8,77,964.

Total original area settled in the Province up to 30th September, 1916.

3. The total original area for which a record-of-rights has now been completed under the control of this Department is 78,710 square miles. Progress during the last thirty years has averaged 2,623 square miles a year.

Future programme.

4. In accordance with the orders of the Government of India contained in their letter No. 638-215-7, dated the 29th April, 1913, the revision of the record-of-rights of the district of Saran was taken up during the year under report. The traverse survey of the district of Manbhum (excluding parganas Barahabhum and Patkum) which was to have commenced during the year, had to be postponed owing to financial stringency. No new programme was sanctioned during the year.

Settlement Staff.

5. The largest number of Settlement Officers employed during the field season was three against four in the preceding year. All of them were Civilian officers employed in the major Settlements in South Bihar, North Bihar and Chota Nagpur. The largest number of Assistant Settlement Officers employed

during the year was 86 against 113 in the previous year, of whom 41 were employed in North Bihar, 22 in South Bihar and 23 in Chota Nagpur. This number comprised 4 Civilians, 19 Deputy Collectors, 47 Sub-Deputy Collectors, 6 Munsifs and 10 non-gazetted officers. Of the ten non-gazetted Assistant Settlement Officers three were subsequently promoted to the rank of Sub-Deputy Collectors.

Training of Junior Civilians.

6. Two junior Civilians were deputed to undergo training in Survey and Settlement. Mr. M. J. Dixon underwent training in North Bihar and Mr. H. R. Meredith was trained in Chota Nagpur. They are reported to have acquired a practical knowledge of the vernacular and of rural conditions in the five and half months for which they were deputed, and their services were of much assistance to the Department. Both of them were placed temporarily in charge of cadastral circles, and they are reported to have controlled their staff and organized the work efficiently.

Training of Munsifs.

7. All of the four Munsifs deputed in October, 1914, completed the prescribed term of eighteen months' training. One of the two Munsifs deputed in October, 1915, was found unsuitable for taking independent charge of attestation camp and was discharged in September, 1916.

Training of District Kanungos.

8. No District Kanungos received training in Survey and Settlement work during the year.

Final Reports.

9. The final reports of the Survey and Settlement operations in the districts of Hazaribagh and Shahabad, and in Parganas Barahabhum and Patkum in the district of Manbhum, are passing through the press.

The report on the Special Ganges Diara Survey was completed and submitted to Board.

Maintenance of thana lists and maps.

10. Twelve proposals for alterations in thana and police-station jurisdictions were received during the year for examination. The jurisdiction notifications issued were twenty-one in number. Necessary action for the correction of maps and lists was taken in respect of all the notifications.

Departmental rules.

11. Attestation Rules for North Bihar Revision Settlement were compiled during the year, and received the Board's approval in letter No. 17-177—2, dated the 21st October, 1916.

Utilization of Land Records.

12. Extracts from the annual reports received from the District Officers continue to confirm the opinions expressed in previous years regarding the utility of Survey and Settlement records in almost all branches of administration. In criminal cases concerning land, in civil suits for arrears of rent and possession, in partition and land acquisition proceedings, in certificate cases, in preparing sketches of the scenes of crime, in making chaukidari assessments and in almost every branch of revenue work, the records, it is reported, have been constantly consulted and utilized.

CHAPTER II.—PERMANENTLY SETTLED ESTATES.

South Bihar Settlement.

[*See* Appendices I to IV.]

13. *Programme.*—The programme consisted of the attestation of 1,622 square miles and 13,50,000 plots in thanas Gaya, Barachatti, Sherghati and Rajauli in which there were 16 camps. Commutation work in thanas Arwal, Daudnagar, Aurangabad and Nabinagar occupied two officers until April, and work under sections 105, 106 in thanas Nawada and Pakribarawan started in June and that in Jehanabad in September.

14. *Staff.*—Mr. E. L. Tanner, I.C.S., was Settlement Officer throughout the year. Mr. J. R. Dain, I.C.S., was in subordinate charge of 10 attestation

camps, the Settlement Officer looking after the balance of 6. Attestation started on 25th October, 1915. The first camp finished early in March and the last in May. The result was that Section 103A work was not over till August.

15. *Disputes.*—One of the widest-spread disputes arose in connection with the Collectorate partition of the Khaira Mahal. This Mahal consists of 84 villages and the Collectorate partition began in 1902. In the Batwara Survey, which had taken place many years before, the Revenue Survey boundaries of villages had been adopted without reference to actual possession. The discrepancy between the Revenue Survey boundaries and the boundaries locally recognized gave rise during settlement to a number of disputes which were decided in accordance with the batwara map.

The second class of disputes was due to the existence of tenure-holders who were not made parties to the batwara proceedings. Some of the transactions creating these tenures are clearly *farzi*, and were designed to enable a proprietor to keep hold of lands which might, as a result of the batwara, pass to a rival proprietor. Others again were undoubtedly genuine, but not being created by the whole body of proprietors they were not taken into account in calculating the assets. Where the villages held under these tenures have now passed into the hands of a different proprietor the tenure-holders are liable to ejectment. They were not, however, ejected and are still in possession of their tenures. The Settlement Officer, therefore, had no option but to record their possession leaving the proprietors to institute civil suits for their ejection. *Farzi* tenures were of course not recorded. Much litigation will doubtless follow, and it seems advisable, when the Batwara Act is being revised, to consider whether steps should not be taken to deal with tenure-holders as well as proprietors with the object of ejecting those who are liable to ejectment and avoiding needless litigation.

16. *Rent disputes.*—In village Kurkihar belonging to Rai Hari Prasad Lal there had been disputes between the landlord and the raiyats as to whether the system of produce rent was *danabandi nausat* or *batai nisf*. The cash rents were also in dispute. Some time ago the landlord obtained a declaration from the High Court against 17 tenants that the system was *danabandi*. The question of rents was raised again by the tenants during attestation. It was found that the papers on which the High Court decree was based did not agree with papers for the same year filed by the landlord in another suit. Neither of these sets of papers was complete and the discrepancies between them were not explained. Finally the attestation officer managed to obtain genuine papers for a few years. These agreed with the others as regards the amounts of rent collected from the raiyats, but differed in respect of the amounts payable and the balances due from the latter. It was clear that in instituting his civil suits the landlord had exaggerated the amount due from the raiyats and had altered his papers in such a manner as to support his claim. The Settlement Officer after examining the papers himself decided the dispute in favour of the raiyats. The landlord's claim was, however, allowed in respect of the 17 tenants affected by the Civil Court decree, and of certain others who had helped him to obtain that decree by supporting his claim in Court. The Settlement Officer estimates that in 70 per cent. of the cases where rents were disputed, the landlords either produced no papers or produced papers which were obviously forged. A comparison of the *siyahas mulhakis* and *laggits* produced showed discrepancies between entries and totals which, if the papers were genuine, ought to have agreed, and in many instances the interpolations and alterations to which these discrepancies were due could be easily distinguished. Prosecutions for forgery or for using false documents as genuine are practically hopeless in such cases as it is impossible to bring the forgery or guilty knowledge of it home to any particular person.

As usual, most of the rent disputes are said to be due to attempts to enhance cash rents or to alter the system of produce rent. In the south of the district many instances were found in which the raiyats offered no opposition to increases of rent which the raiyats of the north of the district would have strenuously

resisted. An ingenious method of evading the limitation placed on enhancement of cash rent by section 29 of the Tenancy Act was found in villages Jamuana and Tilori owned by Saiyid Jawad Husen. The tenants of this landlord formerly held both cash and produce-rent-paying holdings. A few years ago a lump cash rental was fixed for the combined holding of each tenant. The result is that the average rental paid in this estate is now Rs. 18 per bigha as against an average rate of Rs. 8 for similar lands owned by other landlords in the same villages. As the rental fixed for the *bhaoli* lands is not separately specified, it is impossible to hold that the transaction violated the provision of section 29.

17. *Proceedings under section* 58, *Bengal Tenancy Act.*—119 cases of neglect of this section were forwarded to the Collector and special attention was paid to cases of produce rent. 116 cases ended in conviction. In 3 the accused were acquitted. The aggregate of fines imposed was Rs. 2,413. It is to be hoped that these proceedings will result in an improvement. Hitherto section 58 has been a dead letter as regards produce rents except in the larger well-managed estates.

18. *Records of proprietary interests.*—Many cases were found where it was impossible to reconcile Register D with the facts. Confusion especially occurred where two villages of the same or similar names existed near each other. In several of such cases the proprietors and Revenue Survey number of one village were given to the other in Register D. Some confusion also existed in regard to certain jungle villages in the south-east of Barachatti thana. These were held by Babu Ambika Prasad Singh as *mokarraridar* of the 7-anna Tekari Estate, but were recorded in Register D as belonging to the 9-anna Tekari Estate. All the parties agreed that they were really 7-anna Estate villages and they were so recorded. The greatest confusion existed in Mahal Pankardih, Malihari, which covers a good deal of the area of Morhar valley, south-west of Sherghati. There were over 300 separate accounts and the entries in Register D, which were continually being changed, bore no reference to the facts. In some cases proprietors were recorded as having separate accounts in some villages but had no land therein. The Collector is, I understand, closing all these separate accounts and re-opening them on a proper basis.

19. *Relation between landlords and tenants.*—This report is largely concerned with the relationship of landlords and tenants. Generally speaking, it may be said that in the north of the area dealt with, viz., north of Gaya and Rajauli thanas where the disputes were most frequent, raiyats, especially Rajputs and Babhans, are beginning to stand up for themselves and in some cases to go further than is necessary. In the south of the area, in spite of the abundance of land, the raiyats are completely at the mercy of their landlords. The raiyats of village Chuabar in thana Sherghati complained to Mr. Dain after attestation that they had been kept shut up in their houses before *bujharat* until they agreed to admit whatever rents he claimed. The rents claimed and so admitted were too high for them to pay. Whether this part of the story was true or not, it eventually transpired that there had been a Civil Court partition, and when the partition papers were examined it was found that the legal rents were something like 30 per cent. below the attested rents. In Malhari the raiyats admitted rents averaging Rs. 18 or Rs. 20 a bigha, an impossible rent to pay and one which they never could have paid. There was no evidence, however, to show what the actual and legal rents were. This was a case clearly in which the Chota Nagpur Tenancy Act permitting of a settlement of fair rent before final publication would have been useful. The height of such rents can be appreciated when it is noted that generally in this part of Sherghati we have found evidence in village papers and Road Cess returns that about ten years back certain rates were prevalent over the area, viz., Rs. 8 per bigha for *posta* land, i.e., the best land capable of growing opium, Rs. 7 per bigha for *shikam* lands and from Rs. 3 to Rs. 5 per bigha for other lands. In several cases after the decisions in disputes had been given, more especially in disputes as to raiyati land which the landlord claimed as *bakasht* either directly or through a tenant set up for the purpose, the raiyats complained that the landlords paid no attention to them. It was pointed out that their only remedy was to go to the Magistrate, but seeing that parts of this area are 50 miles by road from the nearest Magistrate the advice was not very practical. A Subdivisional Officer is badly needed at Sherghati, and if there is not enough criminal work in thanas

Sherghati and Barachatti to keep him going his appointment as a Munsif would meet the difficulty and tend to put an end to the present state of things.

20. *Partitions.*—The obliteration of tenants' rights caused by Civil Court partitions referred to in last year's report was found to exist to an even greater extent in the area dealt with this year. In village Pathbigha in thana Sherghati a Civil Court partition accompanied by a shifting of all the raiyati lands took place after Khanapuri. It was found impossible to ascertain the rents payable for the new holdings which were, therefore, recorded as "*kabil lagan*".

In Collectorate partitions also it was found that reshuffling of holdings often takes place. This was observed in villages Adalpur and Simra of thana Barachatti where a Collectorate batwara was completed shortly before attestation. The raiyats complained that they were being forced to interchange their lands. As they strongly objected to these changes the holdings as they originally existed were recorded. In village Chilam, thana Sherghati, partitioned in 1913, it was found that rents had been enhanced twice, once during the partition and once subsequently. Both were found to be illegal.

21. *Produce rents.*—In the south of the district the system of *batai* predominates and where *danabandi* exists it is an introduction of recent date and is largely accounted for by the area belonging to the nine-annas Tekari Estate and Babu Ambika Prasad Singh, the father of the Maharaj Kumar, whose estate is under the same management. The latter landlord had recently succeeded in his claim to one-third of the estate held by Musammat Dulhin Kuar which was largely let in *thika* and where the system was *batai*. On entering into possession the system of *danabandi* was introduced in respect of the one-third undivided share and in most cases accepted by the raiyats. So the following curious arrangement takes place. A raiyat's whole field is appraised and the *maliki* and *raiyati* share calculated on one-third of the produce. At harvest the whole crop is put in the *khalihan* and divided into two heaps, one being two-thirds and the other one-third. The raiyat takes the latter and the usual process of *batai* is gone through with the other. It would have been interesting to see how the results of the *batai* compared with the appraisement, but unfortunately no papers could be got from the *thikadar*. In course of time no doubt this system will become one of *danabandi* for the whole estate.

Altogether out of 69,183 produce-rent holdings, 39,060 were held to be *batai* and 29,123 *danabandi*. Only 47 of the *batai* holdings were on a system other than *nisf*, 21 being held on the "*tikuli*" system, one-third to landlord and two-thirds to tenant, and 26 on a system by which the landlord got slightly more than half. The last named were all in one village belonging to the Mohant of Bodh Gaya and the raiyats admitted the claims. No papers were produced and no *abwabs* could be discovered.

Of the 29,123 *danabandi* holdings 14,372 were admitted by the landlord to be *nisf*. In 4,577 the raiyats contested the claim of *nausat*, but only in 43 cases did the landlord succeed in proving his claim. In 6,637 cases the raiyats admitted paying *nausat* but stated that the landlord's share included *abwabs* and *abwabs* were found in all but 80 of these cases.

There remained 4,527 cases in which the nine-sixteenth share was admitted by the raiyats to be all rent. But in 1,518 of these cases the real rent was found to be *nisf*, in 1,002 cases from the landlord's own papers and in 516 cases on other evidence.

Altogether out of 29,123 *danabandi* holdings, 3,142 only were found to be cases where the landlord's share was higher than half.

In some of the Government Estate villages a share higher than half was claimed by the Khas Mahal, but in most cases this was accounted for by the fact that Road Cess had been included. In a few cases, however, in addition to Road Cess, certain payments to Brahmins were also included, which, after reference to the Collector, were provisionally held to be *abwabs*. The matter will be further enquired into when the villages are taken under revenue settlement.

The bulk of the *nausat* claims came from the 7-annas Tekari Estate and as in the previous year these claims were made generally without any

evidence to support them, even in cases where the villages were still in lease. The general claim to *nausat* to which I referred last year was weakened by the fact that we found in the Dakhner Mahal held jointly by Government (8½ annas) and the 7-annas Tekari Estate (7½ annas) that at the time of the previous survey in 1894-1897 *bhaoli nisf* had been recorded without dispute. An instance of the way in which the claim was supported this year will be instructive. Village Utlibara, thana Gaya, which belongs to the estate was in lease to Chhatar Singh and is still in lease to him. It has never been in *sir* possession within memory.

At Khanapuri there was a dispute about the system of rent. No papers were produced and the rent system was decided *batai* in favour of the raiyats. During attestation the *Patwari* produced *danabandi* papers and a moharrir of the 7-annas Tekari Estate was present on behalf of the landlord. The Assistant Settlement Officer thought the papers looked freshly written and that the raiyats who admitted their signatures on the *danabandi* Khasras were not doing so willingly. On cross-examination it came out that the *danabandi* Khasras for the 3 years that had been produced had all been signed by the raiyats this year and there was no doubt that they had been written up after Khanapuri to support the claim.

From every camp which had to deal with the villages of this estate came reports of the petitions of compromise admitting *nausat* which the raiyats had signed without any knowledge of what was in them.

In the villages of the Maksudpur estate *nausat* was recorded on the basis of the previous record though there are one or two facts that go to support the opinion expressed last year that the nine-sixteenth includes *abwabs*. Village Pawai of thana Rajauli which belonged to the Maksudpur estate was sold in 1914. At attestation the tenants and the new landlord's agents admitted that before the previous settlement there were several *abwabs* which were consolidated with the rent to make *nausat*. In Pasarhi which was sold in 1910 the case is even clearer, because the new landlord's papers show clearly the *asal* rent as half with the addition of *Kharcha* to make up *nausat*.

In some of the villages of the estate a dispute was raised by the raiyats as to the "*Mafi*". In the previous record-of-rights this was recorded as being 4 seers in the maund, generally in the villages near Rajauli, whereas the *mafi* in other villages of the estate was 2¾ seers per maund for high caste raiyats and 2 seers for others. In 1909 the Manager proposed to make the *mafi* uniform all over the estate at the lower rate and the Collector approved. The proposal in fact amounted to an increase in rent and as the raiyats had paid without objection for over 5 years, though it is not certain that they knew of the change in the method of calculating rent, and as there is no bar to the increase of produce rents, it had to be recorded.

An interesting method of increasing the landlord's share to nine-sixteenth was reported from villages Punan Kalan, Dali Khap, Ganga Khap and Mohanpur in Gaya thana. Three or four years ago the landlord proposed to the raiyats that the system should be changed from *nisf* to *nausat* but that when appraising, the crop should be under-estimated to the extent of 4 maunds in 20. The *ban* and other deductions being proportional to the crop, the raiyats naturally thought this would be profitable and agreed. Accordingly *nausat* was recorded without dispute. When the raiyats found that the agreement to underappraise the crop had not been mentioned in the incidents, however, they spoke up and the Patwari admitted the whole scheme. It was fairly obvious what the landlord was going to do after he had got *nausat* recorded, and the raiyats seeing this insisted on going back to the old arrangement.

In parts of Pargana Sherghati rents paid by Goalas in *Ghi* were found. This was possibly originally a profession tax but it has now become a rent for agricultural land. Such rents are only paid by Goalas but they are paid sometimes by Goalas who possess no cattle.

22. *Status.*—No very important status problem arose during the year. In the south of the district cases were met with corresponding to the Chikbandha tenures of south Monghyr in which a man took a reclamation lease of an undemarcated area of a jungle village, cultivated what he could himself, and

let out the rest to others. They were dealt with on the lines laid down by Mr. H. McPherson in Monghyr.

23. *Disposal of objections under Section* 103*A*.—There were 17,047 objections in an area of 1621·86 square miles giving an average of 10·50 per square mile. The incidence was 1 dispute in 81 plots and was much lighter than in previous years. The number of cases allowed was 2,651 or 15·5 per cent. A good number of these were in matters that had not been raised at attestation. Subsequent to attestation, for example, the 9-annas Tekari Estate checked the attested records with their records of the previous survey and put in section 103A cases where any discrepancy was found. In spite of the increase in the percentage allowed over that of last year the Settlement Officer is of opinion that the attestation was undoubtedly better.

24. *Cases under Section* 105 *of the Bengal Tenancy Act*.—The most important question which arose in these cases was whether the Settlement Officers are justified in refusing to enhance existing rents, on the ground of rise in prices, beyond the limit of one-fifth of the gross produce. In dealing with this point on appeal the Special Judge appears to have been misled in some of the first cases by the method in which the principle involved was stated by an Assistant Settlement Officer. The latter had stated in his judgement that "one-fifth of the gross produce is generally recognized as a fair and equitable rent". The Special Judge quite rightly objected to the statement which, if accepted, would tend to fix, not a limit to enhancement, but a standard to which all existing rates should be enhanced or reduced. In one of the first appeals heard by him he refused even to accept one-fifth of the gross produce as a limit for enhancement. In a later judgement, however, he appears to have accepted the principle that an enhancement of rent is not to be given automatically on proof that prices have risen during the currency of the present rent. He points out that unless sections 35 and 27 of the Tenancy Act are to be ignored, the proportion of the existing rent to the value of the annual produce of the land should be examined before allowing an enhancement.

The following extract from his judgement shows that he is in practical agreement with the Settlement Officer as to the principles to be followed :—

"The appellants' learned pleader has argued on the principle that section 30 (*b*) of the Bengal Tenancy Act gives a right to an increase of rent whenever after 15 years the prices are found to have risen.

This entirely ignores sections 35 and 27 of the Bengal Tenancy Act, which in effect provide that agricultural rents in India are not to be extended to the limits of rack-rents. Taking this particular case I find that the plaintiff wishes to extend the rents to between Rs. 8 and Rs. 11 an acre. Had he any proof that the gross produce per acre in this village amounted to Rs. 35 or Rs. 40, his application would be entitled to more consideration. But from what I can see on the record the gross produce is never more than Rs. 30 an acre and often less, owing to the Poonpoon floods. The learned pleader for the appellant has not shown me any ground for holding that the Assistant Settlement Officer's estimate of produce is incorrect ; and, after all, in testing what is a fair and equitable rent, one must first consider what are the profits."

25. *Commutation of rents*.—Early in the year most of the pending applications for commutation of produce rents were, under the orders of the Board of Revenue, transferred to the Collector for disposal. Since the date of the order the tenants have practically ceased to file applications under section 40. Last year's attestation area was expected to produce 5,000 or 6,000 cases, yet the total number filed before the Collector and the Settlement Officer is less than 800. It is unlikely that the limited Collectorate staff will be able to dispose of the numerous applications transferred without considerable delay, and the tenants believe that in the interval they will be harassed by repeated suits for arrears of produce rent at unduly high rates. These suits, it is found, are the usual reply of many landlords to an application for commutation.

In the application, dealt with by the Settlement Officer the chief difficulties arose, as usual, from the impossibility of ascertaining with certainty the actual amount of produce realized a rent by the landlord in the ten years

preceding the suit. Evidence on this point would naturally be supplied by the rent receipts and the counterfoils which all landlords are obliged by law to keep. In the majority of cases, however, no receipts are given and no counterfoils exist. The landlords' genuine accounts showing the amounts collected were rarely produced, the papers filed before the Settlement Officer being usually fabricated for the purpose of the case. The raiyats' statements on the point were equally untrustworthy, and in fixing cash rents the Settlement Officer was obliged either to leave out of consideration the amount of produce rent realized by the landlord, or to make an estimate thereof on very unreliable data. One method of making this estimate favoured by the landlords and their sympathizers is to make a crop-cutting experiment and to assume that the whole area of the raiyats' holdings produced crops during the past ten years at the rate given by the experiment, and that the landlord regularly realized the share of these crops to which he is nominally entitled. The assumption, if correct, would indicate that the produce rents realized by the landlord in the past are generally very much higher than those fixed by the Settlement Officer and that the effect of the commutation has been a considerable reduction of the landlords' income. All the officers of the Settlement Department who have had experience of produce rents in South Bihar are, I believe, unanimous in holding that the assumption in question is totally unjustifiable and that the conclusions based on it are incorrect. They believe that the *bhaoli* system is largely a fiction and that the produce rents actually realized, although higher than the prevailing cash rents, do not at all approach the figure which they are generally assumed to touch. It is not possible in this report to state all the facts on which this belief is based. I need only refer to one, viz., the universal desire expressed by those landlords who produce correct accounts to have crop-cutting experiments made with the avowed object of proving that they have been lenient towards their tenants and have taken far less than they are entitled to. It, therefore, follows that the reduction in the landlords' income is really much less than they allege it to be. Commutation of produce rents necessarily involves some such reduction unless the provision of the law directing the Revenue Officer to take into account the prevailing rates of cash rent be ignored. The sympathy which many people express with the landlords on the ground that the reduction is greatly in excess of that contemplated by the law is, in my opinion, misplaced. It ignores the fact that the landlords have totally failed to show what their income from produce rents is, and that this failure is a direct result of the disregard of the law which directs them to give rent receipts and to keep counterfoils thereof.

The Settlement Officer has also been accused of harshness in taking into account against the landlords the Road Cess returns in which the latter have made statements as to the average value of their produce rents. These returns, it is alleged, always undervalue them. The Settlement Officer, however, only used them on appeal in cases where it appeared that the Assistant Settlement Officer had by using the result of his crop-cutting experiments made an estimate of the produce rents which was unduly high and unfair to the tenant. Their use in such cases is legally justified, and if the landlords are allowed to believe that they will not be used against them, it will be a waste of time in future to call for landlords' returns in a district like Gaya where produce rents predominate.

26. *Recovery.*—The recovery of costs began in thanas Arwal, Daudnagar, Aurangabad and Nabinagar in January, 1916. The recovery camp closed in May and the balance was dealt with from Head-quarters. Of the total demand of Rs. 4,86,725 all but Rs. 266-6-0 was recovered during the year and all but Rs. 5,118 was recovered without the use of the Certificate Procedure.

The apportionment order for the rest of the district has been sanctioned and computation has begun. In view of the excellent rains recovery should present no difficulty this cold weather.

27. *Cost.*—The direct cost incurred has been Rs. 2,41,831 including Rs. 3,287, the cost of cadastral work in October and November, 1915. The indirect cost has been Rs. 21,072 including Rs. 6,614 as cost of Director of Land Records and Surveys' control. Receipts amounted to Rs. 8,834 in cash and Rs. 48,771 in stamps. The net cost was, therefore, Rs. 2,05,298.

CHOTA NAGPUR SETTLEMENT.

28. *Staff and extent of operations.*—Cadastral survey and Settlement operations were in progress in the districts of Hazaribagh, Singhbhum and Palamau. In Singhbhum the work done was the completion of recess work and *khuntkatti* identification in the Kolhan Government Estate. The attestation of the second half of the estate was postponed under Government orders. Mr. T. W. Bridge, I.C.S., was Settlement Officer throughout the year, except for a short period of 26 days, during which Mr. A. D. Tuckey, I.C.S., officiated. Throughout the year Mr. Tuckey was in charge of Survey operations (both field and recess) in Palamau district. The number of Assistant Settlement Officers employed during the field season and recess was 21 and 11 respectively. The staff during the field season included 2 Civilians, 6 Deputy Collectors, 1 Munsif, 9 Sub-Deputy Collectors and 3 non-gazetted officers of whom 2 were promoted to the rank of Sub-Deputy Collectors.

HAZARIBAGH DISTRICT.

Area 6,908 *square miles;* 7,007 *villages;* 3,37,097 *holdings;* 54,07,472 *plots.*

29. *Programme.*—The programme of the year consisted of—

(*i*) Recovery of costs of the Settlement operations of 2,639 square miles,

(*ii*) Disposal of post-publication suits and settlement of fair rents under section 85 of the Chota Nagpur Tenancy Act of 1,806 square miles (2nd year's area) pending from the previous year, and of 1,855 and 1,713 square miles (3rd and 4th year's areas, respectively).

30. *Fair rent settlement.*—The number of applications pending from the previous year was 3,099 of which 1,437 were disposed of.

31. *Recovery of cost.*—The total demand for the area under recovery operations was Rs. 4,46,906 and the balance outstanding at the end of the previous year was Rs. 6,754, making a total of Rs. 4,53,660. Of this Rs. 4,21,681 was collected, leaving an outstanding balance of Rs. 31,979 only, which is expected to be recovered by the end of April, 1917.

32. *Cost.*—The total cost of all the operations (including traverse work) up to 30th September, 1916, is Rs. 16,92,583. It is estimated that Rs. 22,000 will be needed to complete the operations. The total estimated cost is, therefore, Rs. 17,14,583. Deducting one-fourth share payable from Imperial revenues, the sum to be recovered is Rs. 12,85,937. The total realizations in the whole district are estimated at Rs. 13,07,389.

PALAMAU DISTRICT.

CADASTRAL SURVEY AND RECORD-WRITING.

Area 4,535 *square miles.*

33. *Programme.*—The programme of the year consisted of the cadastral survey and preliminary record-writing (both field and recess) of 1,147 square miles. The whole programme was completed.

34. *Cadastral Survey.*—The survey was completed in about six months. The detailed survey was checked by 2·10 linear miles of *partal* per square mile, out of which the check by superior agency amounted to 0·21 linear miles. Ten per cent. of the quadrilateral lines, on which the detailed survey is based, were also checked on the ground. The amount of check was sufficient.

35. *Preliminary record-writing (khanapuri) and internal disputes.*—There were 19,145 internal disputes or about 17 per square mile, as against 7 per square mile in the previous year. The disputes related chiefly to possession. The average size of a plot was 1·31 acres, as against 1·91 acres for the previous year.

36. *Boundary disputes.*—There were 546 boundary disputes, all of which were disposed of. The number of appeals against the decisions of the lower courts, including 4 cases remanded last year for further enquiry, amounted to 74, out of which 67 were disposed of. In 44 cases the decisions were

upheld, in 12 modified, in 7 revised and 4 cases remanded for further enquiry at attestation.

37. *Cost rate.*—The cost rate of the cadastral survey and khanapuri worked out at Rs. 100·65 per square mile, against Rs. 75·84 per square mile for the previous year's area. This increase is due to the smallness of the area dealt with, the increase in the proportion of cultivated area and the decrease in the average size of the plots.

SETTLEMENT.

38. *Programme.*—The programme consisted of (i) the attestation and draft publication of 1,414 square miles; (ii) disposal of objections under sections 83 (i) and 111 (6) of the Chota Nagpur Tenancy Act in the area under attestation; (iii) Settlement recess work of the attested area; (iv) final publication of 1,172 square miles (1st season's area). The whole programme was completed with the exception of about one-half of the Settlement recess work and a small number of objections under sections 83 (1) and 111 (6), which will be completed shortly. The delay in the completion of recess and case work is due to the attestation camps finishing late owing to the area being exceptionally difficult and to the peculiar conditions prevailing in the district at the time the attestation work was going on.

39. *Status.*—The number of raiyats having *khuntkatti* rights was 126 or ·30 per cent. of the total number; occupancy raiyats numbered 37,880; settled raiyats 29,422; and non-occupancy raiyats 1,832 or 4·55 per cent. of the total.

40. *Rent.*—The raiyati rent for the whole area under attestation averaged 26 per cent. of the calculated value of the gross produce.

41. *Objections under sections* 83 (1) *and* 111 (6) *of the Chota Nagpur Tenancy Act.*—There were 4,527 and 237 objections under the two sections, respectively, out of which 771 objections under the former and 51 under the latter are pending. They will be disposed of shortly.

42. *Agrarian conditions.*—As in the previous year the chief features of the attestation were the prevalence of illegal enhancements, insecurity of tenure, and the failure of the landlords to grant rent receipts. The action of the Settlement Officer in excising the illegal enhancements and recording the legally payable rents aroused considerable opposition from the landlords who presented to Government three memorials attacking his action in this matter. They also impugned the correctness of the record-of-rights in respect of many other matters, *e.g.*, *zirat* lands, *khuntkatti* rights, tenant's rights in jungle and waste lands, the right of tenants to make *korkar* and the privileges attaching to it when made, and the acquisition of occupancy right by custom. The correctness of the classification of lands made by the Settlement Officer was also questioned. Their objections on these points were generally supported by the Deputy Commissioner. I have inquired into these allegations and submitted a report which is now under consideration by the Local Government. The incidence of rent in the area dealt with, although lower than in the previous season's area, is high, amounting to 20 per cent. of the average annual gross produce.

43. *Cost of all operations.*—The total net cost of all operations (including traverse work) in the district up to 30th September, 1916, is Rs. 6,23,774. To complete the operations in the district will cost about Rs. 4,25,510 more. The total estimated net cost is, therefore, Rs. 10,49,284. Proposals for recovery of Survey and Settlement costs have been submitted to the Board of Revenue with this office letter No. 4569, dated the 23rd September, 1916. The rates proposed for recovery are as follows :—

	Rs.	a.	p.	
First class rice land	2	8	0	per acre.
Second class rice land and first class upland	2	0	0	"
Third class rice land	1	4	0	"
Second class upland	0	12	0	"
Third class upland	0	8	0	"
Uncultivated	0	1	9	"

CHAPTER III.—REVISION SETTLEMENTS AND MAINTENANCE OF LAND RECORDS.

[See Appendices I to VIII.]

North Bihar Revision Settlement.

44. *Staff and extent of operations.*—Mr. J. A. Sweeney, I.C.S., was Settlement Officer until the 30th August after which Mr. J. A. Saunders, I.C.S., officiated. During the field season Mr. Saunders and Babu Haridas Roy, Deputy Collector, were in charge of the attestation camps and Mr. A. R. Toplis, I.C.S., was in charge of map-revision and preliminary record-writing. The number of Assistant Settlement Officers employed during the field season and recess was 40 and 16, respectively. Of the Assistant Settlement Officers employed during the field season 3 were Civilians, 9 Deputy Collectors, 22 Sub-Deputy Collectors, 2 Munsifs and 4 non-gazetted officers. The operations comprised preliminary record-writing in Saran District and attestation, final publication and case-work in Champaran district.

Saran District: Thanas Mirganj and Gopalganj.

Area 788 *square miles;* 1,507 *villages.*

Map-revision and Preliminary Record-writing.

45. *Programme and progress.*—The area embraced by the original programme was 1,119 square miles comprising thanas Mirganj, Gopalganj and Sewan. On receipt of Government orders curtailing the programme the operations in Sewan were suspended at the end of November, leaving an area of 788 square miles to be dealt with. This area was divided into 6 circles and was found to contain 14,26,835 plots. The field season ended about the middle of March.

46. *Staff.*—The Assistant Settlement Officers, with one exception, were new to the work, but the Kanungos, of whom the number this year was increased by 50 per cent. to replace Head Inspectors, were experienced. Both did good work. The subordinate staff which in previous years was very weak was strongly reinforced from South Bihar. The reduction of the programme enabled a further elimination to be made of the less competent amins and Inspectors. Consequently the staff was efficient.

47. *Check.*—The total check of survey works out at 6·41 linear miles per square mile, of which 1·32 miles was ordinary *partal* as in original surveys, 3·76 were *katan partal* (i.e., *partal* in which only intersections of the *partal* line with field boundaries are checked), and the rest independent or final *partal.* Check of ·22 of a mile per square mile was done by Assistant Settlement Officers, and ·66 by Kanungos. The rest was done by Inspectors. In addition to the above, the measurements of 3·52 per cent. of the plots were separately tested. The record-writing of 14·16 per cent. of the plots was checked; ·29 per cent. by Assistant Settlement Officers, 1·45 by Kanungos and 12·42 by Inspectors. The Assistant Settlement Officers did ·8 of a linear mile more personal *partal* than was done by them last year, but ·8 per cent. less check of the record-writing. Both were supplemented by an increased amount of check by Kanungos. Check by Assistant Settlement Officers who have to bear the whole burden of deciding disputes is unavoidably small. I consider that the check was adequate.

48. *Internal disputes.*—19,731 disputes were instituted and all decided. They average 1·3 per cent. of the total number of plots, against 1·8 per cent. during the previous year. The Saran raiyats are probably not less litigious than Champaran, and the reduction in the number of disputes is due in some measure to the exercise of a better control by the superior agency over the field staff.

49. *Boundary Marks.*—The maps prepared during the last cadastral survey have been adopted as the units of survey and record. In the area surveyed there were 3,255 trijunction marks, of which 2,665 or 82 per cent. have been found. This percentage of marks, surviving is high specially in view of the fact that many of the marks are not stones but earthenware cylinders. Stones have been embedded at trijunctions where no marks were found.

50. *Increase of fields.*—The number of fields has increased by 27 per cent., the same percentage of increase as in the previous season's area in Champaran. The population is far denser in Saran, and a larger increase might have been expected, but probably the subdivision of fields had previously reached its economical limit.

51. *Costs.*—The total expenditure (direct and auxiliary) for the season's area is Rs. 1,82,618. Of this sum Rs. 40,743 represents the cost of a new record room, a building for the Cadastral office and of instruments and tents, and Rs. 8,147 was spent in Sewan where operations were suspended. Deducting the above items the incidence of cost works out at Rs. 169 per square mile or Rs. 9-5-4 per 100 plots, against Rs. 107 and Rs. 8-13-6 of the previous year. The increase is due mainly to the following causes :—

(1) The increase in the number of fields in the area dealt with which rose to 1,976 per square mile against 1,277 of the previous year.

(2) The reduction of the programme which resulted in the incidence of supervision and office charges being heavier.

(3) The strengthening of the supervising agency with a view to relieve the Assistant Settlement Officers who are mainly occupied in deciding disputes.

52. *Municipalities.*—The completion of the survey of the Bettiah and Motihari Municipalities was reported last year. Since then all appeals have been disposed of and the papers deposited in the Municipal Offices.

Settlement.

53. *Area and progress.*—The record for Bettiah Subdivision excluding the *diara* portions of thanas Bagaha and Bettiah was finally published. The case work (sections 105, 106, Bengal Tenancy Act) of Bettiah Subdivision was taken up from 1st June.

The area under attestation was 1,742·73 square miles (the whole of the Sadr Subdivision with the *diara* area of thanas Bagaha and Bettiah) containing 21,90,379 plots. Progress was much more rapid than in the preceding season and the programme was practically finished in April, 1916. The officers employed were as a body very much better than in 1914-15 and the general standard of their work was high. Over one-fourth of the area the proceedings were prolonged and complicated by the very difficult question of indigo enhancements which had to be decided without any kind of judicial precedent.

54. *Disposal of objections under Section 103A, Bengal Tenancy Act.*—26,198 objections were filed under section 103A. Of these 9,769 or 37 per cent. were allowed while 16,429 or 63 per cent. were disallowed. Of the number allowed, however, 3,427 were claims advanced for the first time under section 103A., and not put forward at any previous stage of the operations.

Deducting these the percentage allowed is 23.

I do not consider that the figures need any apology. The work of the attesting officers was constantly inspected and was on the whole very sound. If cases are carefully selected—and I would point out that in Revision the parties are both keener and better acquainted with the record than in original settlement—there is no reason why the objectors should not gain 40 per cent. of their claims.

55. *Rent questions.*—The great question of the year was the legality of the enhancements made by indigo planters in consideration of the abrogation of the obligation of the raiyats to grow indigo on three-twentieths of the area of their holdings. The enhancements exceeded two annas in the rupee and professed to have been effected in accordance with the provisions of section 29, proviso (iii), Bengal Tenancy Act. The history and treatment of these cases has already been described in paragraph 53 of the report for the year ending 30th September, 1915. It is not, therefore, necessary to treat the cases in detail again. The cases were referred for legal opinion, which endorsed the principles adopted in deciding the cases. In the great majority of cases the enhanced rents were allowed and most of the balance were settled by compromise under section 109C.

As the principle involved in these cases is of cardinal importance, I quote some observations of the Settlement Officer which are the result of a year's acquaintance and working with the law and facts.

"The law in question purports to remove the 2-anna limit, imposed on contractual enhancements by section 29, in all cases in which a raiyat has held his land at a specially low rate of rent in consideration of cultivating a particular crop for the convenience of his landlord, and has been released from the obligation of cultivating that crop, the release being conditional on enhancement of rent.

"In theory there is nothing wrong or unfair in this provision. In practice it strikes at the very root of the tenancy law, and may yet operate as a potent instrument of injustice.

"I would first refer to pages 512, 513, 516 and 539 of the printed Proceedings relating to the Bengal Tenancy Act. I would direct attention in particular to the observations of Mr. Reynolds and Mr. (now Sir) Amir Ali—observations which experience has more than justified. A 'specially low rate of rent' is practically incapable of judicial definition. An eminent advocate who appeared for a landlord in this connection suggested that when a raiyat was under an obligation to grow a particular crop for his landlord his rent might 'fairly be presumed to be specially low'. The suggestion savours of the frivolous though it was not so intended.

"A plausible definition of 'specially low' is 'lower than the rent would have been if there had been no obligation'. This interpretation, however, can give results that cannot possibly be reconciled with the Tenancy Law. For example, a landlord settles land with a settled raiyat of a village as follows:—

Area.	Rent.
	Rs. a. p.
1 acre	9 15 6

"In the kabuliyat it is specified (*i*) that the raiyat shall grow indigo on $\frac{3}{20}$ acre for the landlord; (*ii*) that on this account the rent is 6 pies lower than it would have been otherwise, i.e., Rs. 9-15-6 instead of Rs. 10.

"It cannot reasonably be urged that such a transaction should put the landlord outside the jurisdiction of the enhancement provisions of the law.

"I have taken an extreme case, but it illustrates the situation and its possibilities.

"It is clear that in order to administer the law in the just spirit that actuated the legislators, we must fix some upper limit to the 'specially low rate'. As to what this upper limit should be and how it should be determined neither the law nor the judicial precedent has given any hint. Herein lay the first difficulty with which the Revenue Officers were confronted.

"The determining principle adopted, and its justice cannot be questioned, was that a comparison of the rents before enhancement with rents of similar lands without the indigo obligation should disclose a difference that bore some relation to the proportion of the land occupied by the special crop.

"Where there was no neighbouring land of similar quality without the indigo obligation,—and this case was frequent—allowance was made for the fact that the rents had not been enhanced for 30 years, and to fix an upper limit a deduction was made from the average pitch of rent which the village would have shown with normal and legal enhancements, the deduction being $\frac{3}{20}$, *i.e.*, in proportion to the area occupied by the crop.

"Two examples will illustrate the principle:

"A, a raiyat of village X, held, before the enhancement, 3 bighas at a rent of Rs. 6 at Rs. 2 per bigha. He cultivated indigo on $\frac{3}{20}$ of his holding, *i.e.*, on 9 kathas. On his release from indigo cultivation his rent was enhanced by registered contract to Rs. 15. B, C and D, raiyats of the same village, took settlement of similar lands without any indigo obligation at the rate of Rs. 4 per bigha. If Rs. 4 was the general rent rate for lands without the indigo obligation, I should consider Rs. 4 minus $\frac{3}{20}$ × Rs. 4 = Rs. $3\frac{2}{5}$ a 'specially low' rate of rent for the purpose of section 29, proviso *iii*.

"Rs. 2 being within this upper limit, the enhancement of A's rent, though it amounts to 250 per cent., must be allowed.

"If the pre-enhancement rate exceeded Rs. $3\frac{2}{5}$ per bigha the enhancement would be disallowed *in toto*.

"E, a raiyat of village Y, held 3 bighas at Rs. 9. He cultivated indigo on 9 kátha, i.e., $\frac{3}{20}$ of his holding for the convenience of his landlords. On being released from the obligation to grow indigo his rent was enhanced to Rs. 15.

"There were no raiyats, without the indigo obligation, holding similar lands in the neighbourhood, and so a comparison as in the previous example is not possible.

"It appears, however,—

(*i*) that the average rent rate of the village has been Rs. 2-12 per bigha for the last 30 years, and that there have been no enhancements ever since indigo cultivation began;

(*ii*) that on the ordinary legal grounds the landlord could have enhanced rents by 6 annas in the rupee during that period. Such an enhancement would bring the average village rate up to Rs. 3-12-6. Deducting $\frac{3}{20}$ of Rs. 3-12-6 we get Rs. 3-4 which might fairly be adopted as the upper limit of a 'specially low rate' for the village.

"As the pre-enhancement rate of E's rent was below this limit the enhancement would be allowed.

"The relative tests above described should always be subject to the absolute test of the relation of the rent to gross produce. The average gross produce per bigha was ascertained by enquiry for each village, and in general any rent rate that did not exceed one-eighth of the gross produce was considered possible as an upper limit. It is of course essential to remember that rents must not be presumed to be specially low merely because the raiyats happen to be under the obligation of growing a particular crop for their landlord.

"The second great difficulty is with regard to the interpretation of 'obligation'.

"Need this be an integral part or incident of the tenancy as such, or need it only be a matter of civil contract independent of the relation of landlord and tenant?

"It was held that the obligation must be an incident of tenancy, and it would be difficult to reconcile the opposite view with the tenancy law.

"Section 29, proviso *iii*, clearly indicates that there can be, while section 23 just as clearly indicates that there cannot be, such an obligation attaching to the tenancy of an occupancy raiyat.

"The history of section 23, however, seems to indicate that it was intended mainly to apply to the building of dwelling-houses, the digging of wells, drains and channels, and other uses of land incidental to agriculture. Whether it applies to the growing of crops must remain a matter of some doubt. The points that can be urged on both sides are:—

(*i*) During the preliminary stages of the Tenancy Bill it was proposed to insert a definite provision allowing the raiyat to grow any crops he chose. This provision was not incorporated in the final draft of the bill. The omission is not explained, and no corresponding addition was made to the clause which eventually developed into section 23.

(*ii*) Section 29, proviso *iii*, seems to indicate that such an obligation can attach to the tenancy of an occupancy raiyat. On the other side we have two strong considerations.

(*iii*) Section 29, proviso *iii*, was inserted as a compromise at a late stage, and was drafted in an admittedly vague and haphazard manner, without full consideration of its effect.

(*iv*) If at the inception of his tenancy a raiyat can contract such an obligation at all, there is no logical reason why he should not contract to grow a

particular crop *in his whole holding* for the convenience and profit of his landlord, that is, there is nothing to prevent his contracting himself into serfdom. This is surely against the spirit of the tenancy law.

"By taking advantage of this proviso to section 29, by specifying the growing of any crop when lands are settled, and by a carefully worded kabuliyat, landlords can now defeat the restricting provisions of section 29, and it is not improbable that lawyers will see the weakness of the law and advise accordingly.

"Another defect of the proviso is that it puts no limit whatsoever to the amount of enhancement, *i.e.*, it allows landlords and tenants to contract for rents which no court could settle under the existing law.

"As the situation now stands the law is very doubtful and vague, it is very difficult to administer, and it is capable of unlimited exploitation. It is an urgent case for immediate amendment.

"So far I have considered only the law. As regards the working of it by the parties concerned, it must be admitted that the planters endeavoured in general to settle fair terms with the cultivators, and to carry out the transaction in a just and honourable manner.

"Although the original agreements for enhancement appear to have been entered into voluntarily in nearly all cases, a very determined attempt was made by the raiyats to get rid of the enhancements at attestation. The ground taken was that the agreements were obtained by force, and that in any case they were illegal. The tenantry manifested remarkable cohesion and persistence and strongly resented the unfavourable decisions of the Revenue Officers. This continuous unpleasantness made the work very onerous, and might have resulted in serious breaches of the peace. The officers, however, behaved with great patience and tact, and nothing untoward happened.

"Unless the Civil Courts decide, otherwise I am of opinion that the settlement decisions will be peaceably accepted now, as the raiyats are not willing to resume indigo cultivation which is the alternative to enhancement."

Except for this indigo question rents offered no difficulty in the major portion of the Sadr Subdivision. In the estate of the Madhuban zamindar, however, a very serious matter came to light. It was found that since the last settlement, the original record-of-rights had been tampered with and that forged entries in the zamindar's interest had been added or substituted in a large number of cases. The facts were brought to the notice of the Collector and steps have been taken to make such alterations impossible in future. In all these cases we were forced to disregard the record-of-rights, and to follow the raiyats' copies of the khatians.

A number of claims was made by the Bettiah Estate and other landlords to have lands recorded as 'liable to rent' on the ground that they were not part of the holdings settled with the raiyats.

In all cases where a holding dating from the last settlement, had not been altered by any fresh transaction, it was easy to determine by a comparison of the old and new maps whether the tenant held any excess or unassessed land.

Where, however, the tenancy originated since the last settlements the question of excess area was difficult to decide.

If a complete holding as recorded in the last settlement has been settled with a new tenant and the latter is found in possession of a greater area than the recorded area of that holding, it is very difficult to decide whether the excess area accrued before or after the origin of the new tenancy. The outlines of fields undergo much change in a period of 20 years and it is nearly impossible to find when exactly such changes occurred. The whole question, however, is more important in cases under section 105, Bengal Tenancy Act, than at attestation, and it will be dealt with at length at a later stage of the operations.

56. *Inter-provincial boundary.*—In 1887 the boundary between Gorakhpur and Champaran was determined by a Commission.

It was found, however, by comparing the maps of the border villages of the two districts that they did not agree, and the United Provinces and Bihar and

Orissa Governments agreed to have the discrepancies reconciled by Mr. J. R. Booth, I.C.S., of the Gorakhpur district and the Settlement Officer, North Bihar. They were much handicapped by the fact that the maps of the previous Commission's decision could not be found, either in the United Provinces or the Bihar and Orissa offices. They met on the boundary during the last week of November, 1915, and submitted their joint report in March, 1916. The Governments of both Provinces have since accepted the recommendations made in the reports. The maps, therefore, will now be brought into agreement, but the identification of the surveyed boundary will always be a matter of difficulty in certain areas that are subject to the ravages of the river Gandak.

57. *Cases under Sections* 105, 106 *and* 40, *Bengal Tenancy Act.*—For Bettiah Sub-division there has been a practically universal application for the enhancement of rents. The following are the figures :—

Section 105—

Total instituted	3,444 cases.	103,562 tenancies.
Disposed of during the year ...	501 cases.	8,262 tenancies.

Section 106—

Total instituted	2,283
„ disposed of	182

Section 40—

Total instituted	2,836 cases.
„ disposed of	8 „

The case work commenced on 1st June with one camp. A second camp was added on 1st July, and in August the number was increased to 8. Hence there has not yet been time for much progress.

Some questions of general interest have arisen already in the case work. They are still *sub judice*, but I may deal briefly with a few of the more important matters :

(*i*) The Ramnager Estate is experiencing great difficulty in proving its claims to enhancement owing to the fact that authentic records have not been kept, and there is therefore little or nothing to prove the currency of rents except for tenancies that date back to the last settlement. Both the present and previous Managers have represented to me that the *thikadars* or temporary lease-holders of the estate have deliberately refrained from helping in many cases, as the enhancement of rents is not in the interest of these middlemen.

The estate, however, is extremely reasonable in its demand and is ready to compromise on the basis of enhancements of 2 annas in the rupee in all cases.

(*ii*) What is the minimum period of currency of a rent to justify enhancement under Section 30 (*b*) ?

It would appear from section 32, Bengal Tenancy Act, that the tenancy must be at least more than a decade old. On the other hand, sections 29, 37, 40 and 113 indicate 15 years as the minimum life-time of the rent of an occupancy raiyat.

The Revenue Officers have so far adopted 12 years as the minimum period, and it is possible that in this matter they have stretched the law in favour of the landlord.

(*iii*) *Identity and origin of tenancies.*—Occupancy rights are non-transferable by custom in Champaran.

When the present tenant is the recognized purchaser of the complete holding of a former tenant, the question arises whether the currency of the rent for enhancement purposes dates from the induction of the new tenant. The Revenue Officers have held that it so dates only if there was an enhancement at the time of the mutation.

They have similarly held that when a new portion has been added to an old tenancy *at the same rate* the currency of rent for the old portion is not affected by the amalgamation.

I consider the decisions to be equitable. The law on these questions of the identity and origin of tenancies is incomplete and doubtful, and the benefit of the doubt in this again has been given to the landlord.

So many types of cases come up for adjudication in rent settlement that in the absence of definite provisions in the law, the Revenue Officer is bound to exercise his discretion in a fair and equitable manner.

(*iv*) *Amount of enhancement.*—The landlords, principally the Bettiah Estate, claim under section 30 (*b*) an enhancement of 4 annas 8 pies in the rupee on the ground of the rise in prices. A comparison of the published prices of staple food crops in the decade immediately preceding the present year and in the previous decade, with a deduction as indicated in section 32, Bengal Tenancy Act, gives the landlord a claim to this figure.

The question arose whether such an enhancement could equitably be given under section 35, Bengal Tenancy Act.

It was found from the Census and Administration Reports that the strikingly high prices in 6 out of the 10 years of the latter decade were due to temporary causes (such as famine and scarcity) and that, therefore, the numerical difference in prices did not really represent the normal and permanent increase which the legislators had in view (*vide* p. 416 of the printed papers relating to the Bengal Tenancy Act), and therefore the Revenue Officers did not allow the full enhancement claimed. The enhancements allowed so far are as follows:—

On tenancies whose rent is current from 12 to 15 years'

enhancement	... ...	...	2 annas in rupee.
Ditto	15 to 18 years	...	2½ „ „
Ditto	18 years and over	...	3 „ „

Appeals have been filed, and the estate is confident of establishing its full claim. I will, therefore, not deal with the question further at present.

58. *Relations between landlord and tenant.*—The indigo question over which such bitterness arose has a long history, and it is quite impossible to do justice to it in the compass of an annual report. The full discussion of it has been postponed for the Final Report on the Champaran operations.

The management of the Madhuban zamindar's property leaves much to be desired. The land is excellent and the property is very valuable—the portion of it lying in *tappa* Duho Suho is probably the most fertile tract in Champaran. The documents and records of the estate appear to be in great confusion, and the estate servants try to make up for this defect by ingenious devices that do not commend themselves to Courts of justice.

A considerable amount of ill-feeling between the estate and its tenantry culminated in the last settlement, and this has not quite passed away, especially as the zamindar's *amla* appear to have adopted dishonest means to defeat and nullify the old record-of-rights.

The Tekari and Sheohar Estates are on satisfactory terms with their tenantry.

In the Bettiah Estate the dispute about the indigo enhancements, or *Sharah beshi*, absorbed most attention. These enhancements were effected on a general scale in the portions of the estate held in *mokarrari* or permanent lease, by the Pipra, Motihari and Turkaulia concerns. The Motihari raiyats made no objection and remained on amicable terms with their landlord right through the operations. In the two remaining areas very bitter feeling was engendered, but it would be a very grave mistake to suppose that such feeling is a permanent feature of those zamindaris. The Pipra concern is, in the opinion of the Settlement Officer, the best managed zamindari with which he has been brought into contact, and the management behaved during this trying period with a patience and tact that deserve great praise.

The fact is that while the resultant rents were not unfair, judged by absolute tests, the enhancements were proportionally very heavy, and the raiyats, though not in any sense reduced to uneconomic conditions, felt the economic change, and, given the hint by their leaders, gambled on the legality of the transaction, in the hope of freeing themselves both from indigo cultivation and from the enhancements.

59. *Section* 109*C.*, *Bengal Tenancy Act.*—This section enables specially empowered Revenue Officers to record, and settle as fair, rents that are technically illegal.

The section was employed on an unusually large scale in the area under discussion, and indeed it furnished the way out of a very awkward situation.

It was found that the growing of indigo was an incident of tenancy over a very large portion of the indigo-planting area.

In cases where rents enhanced under section 29, proviso (iii), were disallowed on the ground that the pre-enhancement rate was not 'specially low', it was necessary to record the growing of indigo as an incident of tenancy. This procedure would have forced the parties to revert to a position which neither desired, and one bitterly resented. It is perhaps fortunate that the raiyats, when the alternatives were explained to them, agreed to the enhanced rents in nearly all such cases. Care was taken to ensure that the compromised rents were fair and equitable, and no rates over Rs. 5 per acre were settled. The landlords readily agreed to a reduction wherever the Settlement Officer suggested it, and difficulties were thus avoided by the exercise of commonsense.

The following are the figures for compromises under section 109-C.—

Total number of tenancies dealt with	6,269
	Rs.
Total rent claimed by landlords	89,623
Total rent settled under section 109-C	89,118

The following are the figures for the section 109-C cases which dealt with the indigo enhancements only :—

Number of tenancies dealt with	5,955
	Rs.
Pre-enhancement rent	53,865
Rent after enhancement	85,393
Rent settled under section 109C	84,927

It will be noticed—

(*i*) that five-sixths of the cases related to the indigo question,

(*ii*) that the enhancement effected in the first instance was 60 per cent. on the original rental,

(*iii*) that the enhancement sanctioned under section 109-C averaged 58 per cent. on the original rent.

Further compromises are still being presented, and the figures are, therefore, not quite complete.

60. *Corruption.*—A determined effort was made to suppress the receiving of illegal gratification by subordinates. Since September, 1913, some 200 employés have been dismissed and discharged. During the year under report five men were prosecuted. Of these 3 were sentenced to one year's rigorous imprisonment, and 2 were acquitted. The prosecutions have had a healthy effect.

No suggestions were received reflecting on the honesty of the Gazetted staff. It is certain that if there were any foundation for such suggestions they would certainly have been made in Champaran.

61. *Cost of all operations.*—The total gross cost of the revisional operations in the district, actual and estimated, amounts to Rs. 10,73,893 which includes Rs. 51,750 for reproduction of village maps and Rs. 3,255 for the future

maintenance of boundary marks. The total receipts in cash and court and process fees are Rs. 2,54,752: the net cost, therefore, is Rs. 8,19,141 which is wholly recoverable from the landlords and tenants of the district. The cost rate of revision thus comes to Rs. 0-5-10 per acre against Rs. 0-8-0 an acre in the original settlement operations. Adding the two new items of expenditure, viz., cost of reproduction of village maps and maintenance of boundary marks, which works out at 5 pies per acre, the total cost rate comes to Rs. 0-6-3 per acre.

Under Government order No. $\frac{9901}{S-183}$R., dated the 25th October, 1916, the cost will be realized from the landlords and tenants in the following proportion:—

Zamindar's share.	Raiyat's share.
0-3-6	0-2-9.

Singhbhum: The Kolhan Government Estate.

Area 1,367 *square miles;* 911 *villages;* 10,47,466 *fields.*

62. *Programme.*—The year's programme consisted of (*i*) Disposal of objections under section 83 (*i*) of the Chota Nagpur Tenancy Act of 636 square miles, (*ii*) Settlement recess work of 636 square miles left pending from the last year, (*iii*) Final publication of the above area. The whole programme was completed except a portion of the last item which will be completed by January, 1917.

The attestation of the second half of the Kolhan was omitted from the programme under the orders of Government on account of famine in the area.

63. *Objections under Section 83 (i) of the Chota Nagpur Tenancy Act.*—There were 1,528 objections which, together with 555 pending from the previous year, were disposed of.

64. *Final publication.*—97 villages out of 470 were finally published under the supervision of a Kanungo.

65. *Suits under sections* 87, 130 *and* 252.—There were 2, 1 and 4 suits under the above sections, respectively, all of which, save one under section 252, were disposed of.

Maintenance of Land Records in Sambalpur.

66. According to the scheme for the preparation of new maps and records for the district of Sambalpur sanctioned in the Local Government order No. $\frac{71\text{-T.R.}}{S\text{-}208}$, dated the 8th November, 1914, maps of 453 villages covering an area of 751 square miles and records of 446 villages containing 4,12,994 plots were prepared during the year under report, against maps of 224 villages covering an area of 294 square miles and records of 196 villages containing 1,97,709 plots completed last year. The better outturn of work of the year is due to the experience gained by the Patwaris in the survey work in the previous field season and to the efficient supervision exercised by the Superintendent and the Assistant Superintendent of Land Records during the year.

67. The survey check amounted to 1,121 linear miles giving an incidence of 1·5 linear miles per square mile, while the check of record-writing was 57,433 plots or about 14 per cent. of the total number of plots for which records were written during the year. The survey and the work of map preparation was adequately supervised by the Deputy Commissioner, Subdivisional Officer, Superintendent, Assistant Superintendent of Land Records and other supervising officers. Mr. Reid, my predecessor in office, who inspected the survey operation in January, 1916, found the work satisfactory and remarked that the maps were first class and that the Patwaris took a good deal of interest in their work and were quite keen to have the survey tested. Good conduct allowance was granted to 33 Patwaris during the year under report. As the Patwaris were employed for the major part of the year on the survey operations and preparation of maps, it has been proposed by the Deputy Commissioner to discontinue the submission of some of the returns, *e.g.*, filing of *Jamabandi* and *Fihrist Tabdilats*, etc., temporarily till the survey of the district is completed.

North Bihar Mutation Offices.

68. The experimental mutation offices at Hajipur and Mahnar in the district of Muzaffarpur were continued during the year under report. The total receipts from all sources amounted to Rs. 1,784-8-0, as against an expenditure of Rs. 2,363-3-6, showing a total loss of Rs. 578-11-6 on the working of both the offices.

Mutation in Government and Wards' Estates.

69. The results of the mutations effected during the year under report in Government and Wards' Estates will be found in Appendix V. In the Government estates, the standard percentage of mutations, viz., 8 per cent. of the total number of tenancies, was maintained only in 8 districts, and with the exception of Sursand, Parikud and Barhadih estates, it was generally low in almost all other Wards' estates. As in previous years, the low percentage is attributed in some cases to the recent publication of the record-of-rights or to the pendency of Survey and Settlement proceedings, and to the non-recognition of the mutation of portions of holdings. In Chota Nagpur it is attributed to the inadmissibility of transfers of raiyati holdings by sale or gift under the Chota Nagpur Tenancy Act. In some of the Wards' estates the percentage of mutations shows an improvement, and it is probable that a similar effect would be produced in others if the subject received more attention from Managers during their inspections.

Inspection of Rent-Rolls.

70. The results of the inspection of rent-rolls by superior and inferior agencies have been embodied in Appendix VIII. As in previous years, the percentage of check in some cases amounted to 100 per cent.; but no unreported mutations were detected. The prescribed standard of 50 per cent. check of the rent-rolls was not attained in several estates, and no satisfactory explanation of the failure to reach the standard has been furnished.

CHAPTER IV.—MAINTENANCE OF BOUNDARY MARKS.

[*See* Appendix IX.]

71. The reports received from the district officers indicate that the work of maintenance of boundary marks continued to receive their careful attention and that generally adequate steps were taken for the restoration of the marks found damaged or missing. The details of the results of inspection in the different districts will be found in a tabular form in Appendix IX. In the districts of Shahabad and Hazaribagh the work of making over the trijunction marks to the custody of dafadars and chaukidars was completed during the year. The work is still in progress in districts of Balasore and Puri. In pargana Barahabhum and Patkum in district Manbhum, the percentage of marks reported by the local police to be damaged or missing was extraordinarily high. The Deputy Commissioner entertains some doubt about the accuracy of the reports received and is taking necessary steps to have them verified.

The re-erection was completed during the year of the special Ganges Diara reference pillars in district Saran which had been washed away during the previous year. A few of the marks in district Patna were also found to have been washed away. Arrangements have been made for their re-erection at safer positions during the ensuing field season.

72. *Fund for the Maintenance of Boundary marks.*—During the financial year 1915-16 a sum of Rs. 13,812 in respect of district Hazaribagh was recovered in advance and transferred to the Fund for the Maintenance of Boundary marks. The total receipts to the fund now amount to Rs. 47,907. The total expenditure up to the end of the financial year was Rs. 3,492-3-9, leaving an opening balance of Rs. 44,414-12-3. The expenditure during the financial

year 1915-16 amounted to Rs. 1,330-7-5, the details of which are noted below :—

	Rs.	a.	p.
South Bhagalpur	422	3	5
South Monghyr	120	6	6
Patna	715	8	6
Shahabad	2	5	0
Parganas Barahabhum and Patkum, district Manbhum ...	70	0	0
Total	1,330	7	5

The question of alteration of the standard rate, at which the cost of maintenance of boundary marks is to be estimated and recovered in advance from landlords and tenants of districts under settlement, was further considered during the year. As called for by the Board of Revenue, a report on the subject was submitted in my letter No. 4264, dated the 8th September, 1916, proposing that in view of the insufficiency of the data on which to base an estimate of the probable cost of maintenance, the question of reduction of the rate may stand over for the present. The proposal was approved of in Government order No. $\frac{9870\text{-R}}{\text{IIS}-9}$, dated the 23rd October, 1916.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

73. *Charge.*—Mr. John Reid, I.C.S., was in charge of the Department up to the afternoon of the 14th April, 1916, when I took charge from him.

74. *Tours.*—The total number of days spent on tours by Mr. Reid and myself was 163 days, of which 138 days were spent in inspecting Settlement operations of the Province—100 days by Mr. Reid and 38 days by myself. Mr. Reid paid five visits to the Chota Nagpur Settlement, three to South Bihar, and two to the North Bihar Settlement. Mr. Reid inspected once the maintenance of Land Records in Sambalpur and the Survey School at Angul. I visited the Chota Nagpur Settlement twice and the South Bihar and North Bihar operations once.

75. *Merits of officers.*—The three Settlement Officers, Messrs. Tanners, Bridge and Sweeney, controlled their Settlements with efficiency and ability, Mr. Sweeney in North Bihar and Mr. Bridge in Palamau have been called on to face unusual difficulties calling for the exercise of the utmost tact and patience. Mr. Sweeney's treatment of the problems connected with the indigo industry in North Bihar has received the approval of the law officers of Government and is recognized even by those with whom the Settlement operations are unpopular as being marked by absolute fairness to both sides.

In the produce-rent question in Gaya, Mr. Tanner has had a problem of equal difficulty. His view of the case, though not acceptable to the landlords, agrees with that taken by his predecessors, Mr. Hubback and myself, although it has been arrived at independently.

The covenanted assistants, Messrs. Dain, Saunders, Tuckey and Toplis, have rendered valuable assistance to their Settlement Officers.

As in last year, most of the officers of the Provincial and Subordinate Executive Services worked satisfactorily. I regret to report, however, that one of the Sub-Deputy Collectors employed in the South Bihar Settlement was proved to have been guilty of taking a bribe and was, in consequence, dismissed.

The following officers are selected for recognition from this year's report:—

Deputy Collectors.

1. Babu Rajani Kanta Sen.
2. „ Sudhansu Bhushan Mitra.
3. „ Madhab Chandra Misra.
4. „ Haridas Roy.
5. „ Akhauri Gopi Kishor Lal.
6. „ Phanindra Nath Gupta.
7. „ Phanindra Nath Mukharji.
8. Mr. Luke Bibhu Prasad Seal.
9. Khan Sahib Muhammad Hamid.
10. Babu Basanta Kumar Roy.
11. Maulavi Abdul Qadir Khan.
12. Lala Prem Nath Kapur.
13. Babu Surendra Nath Sen.
14. „ Mathura Prasad Chaube.

Sub-Deputy Collectors.

1 Babu Jug Dutt.
2. „ Chandra Kumar Mathur.
3. „ Sukhdev Narayan.
4. „ Pashupati Ghose.
5. Mr. J F. Gantzer.
6. Babu Ramesh Chandra Chakravartti.
7. „ Ashutosh Sen Gupta.
8 Babu Mriganka Shekhar Mukharji.
9. „ Bhagaban Mahapatra.
10. „ Sharbari Kanta Gupta.
11. „ Bijay Kanta Sen.
12. Mr J. E. Coutts.
13. Babu Dhanmassi Panna.
14. Pandit Jayadeva Misra.

Non-Gazetted Officer.

1. Babu Priya Ranjan Das.

It seems fitting in this report to pay a tribute to the memory of Mr. Duncan who was recently killed while on active service in Baluchistan. He served in the South Bihar Settlement for five years and left in April, 1915, to take a commission in the Indian Army Reserve of Officers. He was known as a just and conscientious officer not only to his colleagues and subordinates, but to the inhabitants of the portions of Gaya in which he had worked.

76. *Acknowledgments.*—The Settlement Officers are indebted to the district officers of Gaya, Messrs. Whitty and Hubback, Champaran, Mr. Heycock, Singhbhum, Mr. Hallett, and Sambalpur, Rai Man Mohan Roy Bahadur, for co-operation and assistance in the preparation of the record-of-rights.

PART II.—TRAVERSE SURVEYS AND DRAWING OFFICE.

CHAPTER I.—TRAVERSE SURVEY: GENERAL SUMMARY AND GENERAL REMARKS.

77. The anticipated programme of traverse survey in the district of Palamau was 895 against an actual outturn of 925 square miles. In addition to this, thirteen miscellaneous petty surveys were undertaken and completed.

Programme and outturn.

78. Excluding the share of control, the cost-rate attained during the year in the district of Palamau is Rs. 34 per square mile against Rs. 36·9 for 1914-1915 and Rs. 25·77 for 1913-14.

Cost-rate.

CHAPTER II.—DISTRICT SURVEYS.

District Palamau.

[*See* Appendix XI.]

79. The programme consisted of the traverse of 977 villages in thana Daltonganj (including outpost Panki) and the remaining portion of thana Patan. This completed the Traverse Survey of the whole district.

80. The country traversed is fairly open and cultivated with the exception of the southern portion of thana Daltonganj and the eastern and southern parts of outpost Panki which are jungly. The climate was on the whole good.

81. This year also, as in the previous year, there was practically no demarcation of village boundaries, but with the issue of a few *Talbana* notices the lines were cleared and most of the zamindars rendered assistance. The field work was completed by the end of February. Revision went on till the middle of April.

82. In last year's report my predecessor pointed out the difficulties experienced in Palamau in giving effect to the provisions of section 44 of the Survey Act which compels the Settlement Officer, when deciding a boundary dispute, to relay the old boundary shown in the maps of the Revenue Survey as well as to ascertain the present boundary according to actual possession. These difficulties were experienced in an aggravated form during the present year. Strict compliance with the words of the section will give rise to a considerable expenditure without leading to any desirable result. A report on the subject has been submitted to the Board in connection with the memorials of the Palamau zamindars on which orders are awaited.

CHAPTER III.—MISCELLANEOUS SURVEYS.

[*See* Appendix XI.]

83. The miscellaneous surveys were as follows :—

(1) *Singhbhum-Bonai Boundary Dispute.*—The traversing which covered a distance of about 38 miles started from Gamburu H. S., the trijunction of district Singhbhum, Bonai and Gangpur States and closed on the trijunction of Singhbhum, Bonai and Keonjhar States. Connections were made with Malpoda H. S., Ragdaburu H. S. and Kiruburu H. S.

(2) *Balasore-Mayurbhanj Boundary.*—The total length of the boundary to be relaid is about 75 miles and it will take three field seasons to complete the demarcation. The work was commenced from the trijunction of Balasore and the Nilgiri and Mayurbhanj States and carried on as far as Mauza Chasakhand. Altogether 146 pillars covering about 25 miles of the boundary were relaid. In the Ambahatta-Kaptipada portion of the boundary the traverse lines were reopened and the sites of 101 pillars were fixed.

(3) *Gangpur-Jashpur and Raigarh Boundary Dispute.*—This work covered a length of about 52 miles of traversing and detail survey of the disputed area between the Feudatory State of Gangpur in Bihar and Orissa, and the States of Jashpur and Raigarh in the Central Provinces.

(4) *Ganges Diara special demarcation.*—Twenty-nine Ganges *diara* reference pillars of 1910-11 were re-embedded on permanent high ground.

(5) *Nepal-Purnea Boundary.*—This work comprised the marking of the portions of missing boundary pillars between Nepal and the district of Purnea, and fixing of reference pillars in connection with them. Most of this work will have to be redone in the present season owing to the fact that arrangements were not made beforehand by the local officers of the Public Works Department to collect materials for erecting pillars on the sites marked by the surveyor. The pillars could not in consequence be built before the rains set in, with the result that nearly all the marks put down were washed away by the floods which occurred in August. Where the sites of pillars which have been washed away are being demarcated by a surveyor it is essential that materials should be collected beforehand and that the work of re-erecting each pillar should begin as soon as its site has been ascertained.

(6) *Bishanpur Bhairam, Sirsia Kalan and Gamharia Boundary Dispute.*—The demarcation of the boundaries of these villages in thana Raniganj, district Purnea, according to the Revenue Survey of 1845-46, was taken up at the instance of the Collector and the sites of 212 pillars along 13 miles of boundary were fixed.

(7) *District Bhagalpur.*—Survey and record-writing under section 101 of the Bengal Tenancy Act of villages Bhawanipur and Ratansar in thana Protabganj, district Bhagalpur, covering an area of about 2,335 acres, at the instance of the Collector.

(8) *District Shahabad.*—The demarcation of the boundary between Salempur Government estate and Piparpanti, a private estate in thana Arrah, according to the Diara Survey map of 1863-64, at the instance of the Collector.

(9) *Turk Ballia.*—The demarcation of the boundaries of Mauza Turk Ballia, district Shahabad, according to the Revenue Survey maps of 1840, at the instance of the Collector.

(10) *Tajpur, Bhikhanpur and Taranpur Boundary Dispute.*—The demarcation of the boundaries of mauzas Tajpur, Bhikhanpur and Taranpur according to the Revenue Survey of 1840 at the instance of the Collector as a sequel to the Turk Ballia case.

(11) *District Monghyr.*—The final demarcation of the disputed boundary between villages Bhimbandh and Gaighat on one side and mauza Najari on the other.

(12) *District Hazaribagh.*—The laying down of a partition line in village Sijua in thana Nawadih, at the instance of the Manager, Ramgarh Wards' Estate.

(13) *District Sambalpur.*—Re-traversing of villages Parmanpur, Deogaon, Barloi and Tamperkela and plotting from the old traverse tables of the area for revision survey, at the instance of the Deputy Commissioner.

CHAPTER IV.—BIHAR AND ORISSA DRAWING OFFICE.

[*See* Appendices XI and XII.]

84. *Charge.*—Mr. J. H. Murphy held charge of the office throughout the year.

Imperial Standard Mapping Section.

85. The section was as usual employed on the preparation of standard maps from the data supplied by recent cadastral surveys in the Province of Bihar and Orissa. The figures supplied by the Director of Surveys, Bengal, show the outturn for Bihar and Orissa as follows :—

(1) Thirteen standard sheets covering an area of 3,277·230 square miles were sent to the Map Publication Office for publication. The sheets relate to the districts of Monghyr, Patna, Gaya, Ranchi, Balasore, Singhbhum and Palamau, and Sarguja and Mayurbhanj States.

(2) Four standard sheets covering an area of 1,085·883 square miles appertaining to the districts of Gaya and Hazaribagh were also completed, and will be sent for publication shortly.

(3) Twenty-seven standard sheets relating to the districts of Gaya, Palamau, Shahabad, Hazaribagh, Ranchi, Patna and Manbhum are being compiled.

(4) Eight sheets of this Province relating to the district of Manbhum, remain to be compiled.

(5) (*a*) Ten uncorrected proofs were examined.

(*b*) Fiscal limits and cultivation were coloured on 20 unpublished black proofs.

(*c*) Eleven published prints of Standard and District maps were coloured as office copies.

Hitherto all unsurveyed hill areas were mapped as blocks and shown as jungle or with letter H or the words " Hills unsurveyed " typed across them in the body of the maps, but details for such areas will henceforth be inserted from old material, enlarged for the purpose, and a note made to that effect on each sheet to make them more useful. All such sheets previously published, will gradually be recalled and completed.

Provincial Drawing Office.

86. *District Maps.*—The $\frac{1}{2}''$ map of district Shahabad has been practically completed and will be sent for publication shortly. The $\frac{1}{2}''$ map of district Patna is in hand.

87. *Skeleton District Maps.*—The Skeleton District map of Monghyr was completed and 100 copies were printed.

88. *Final Thana Maps.*—The year's programme consisted of the preparation of the maps of 33 thanas falling in districts Hazaribagh, Patna, Ranchi, Sambalpur, Santal Parganas and Shahabad.

89. *Special Ganges Diara Maps.*—Out of 138, the total number of sheets for publication, 22 special Ganges *Diara* maps were compiled during the year and 23 were published, which brings the number published up to date to 80.

90. *Miscellaneous Maps (inter-departmental).*—A number of maps consisting of 20 different items were prepared and reproduced for the Government Press, Heads of Departments and other offices for the purpose of illustrating reports and other works, *e.g.*, a comparative map in 6 sheets of the Ganges river between districts Shahabad, Ballia and Ghazipur, plan of Ranchi-Lohardagga Railway, Index map of Champaran, seven traces for irrigation map of Gaya district, two traces of village Salempur for Barh Municipality, map of parganas Barahabhum and Patkum, map of district Shahabad, etc., etc.

91. A statement showing the outturn of the Bihar and Orissa Drawing Office, together with the expenditure incurred during the year, is given in Appendix XI.

92. *Progress and costs.*—A statement showing the cost per copy of various kinds of maps reproduced during the year is given in Appendix XII. The cost-rates under all heads are lower than those of previous years. This is due partly to the large orders for vandyked copies of cadastral maps received from the United Provinces and to the efficient supervision exercised by Mr. J. H. Murphy and the Section officers, which resulted in an increased outturn in proportion to the number of men employed.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

93. *Charges.*—Mr. John Reid, I.C.S., was in charge of the Survey Department up to the afternoon of the 14th April, 1916, when I took charge from him.

94. *Tours.*—163 days were spent on tours by Mr. Reid and myself, during the year under report, of which 25 days—19 days by Mr. Reid and 6 days by myself—were spent in inspecting the office of the Traverse Section at Hazaribagh and the Bihar and Orissa Drawing Office at Gulzarbagh. Mr. Reid paid two visits to the Traverse Section and three to the Drawing Office. I visited once the Traverse Section and the Drawing Office.

95. *Merits of officers.*—The following officers of the Survey Department deserve much credit for the efficiency of the work carried out under their supervision during the year:—

Mr. J. H. Murphy, Mr. F. H. Alderson, Babu Dharani Dhar Mukharji and Mr. A. W. Skempton.

I have the honour to be,

SIR,

Your most obedient Servant,

P. W. MURPHY,

Offg. Director of the Department of Land Records and Surveys,
Bihar and Orissa.

B. & O. G. P. (D L. R.) No. 35—233—22-1-1917—J. W. L.

APPENDICES.

APPEN

[*See* Chapters II and III of

General Progress of Survey and Settlement

Note—The areas shown in this Appendix

AREA IN

Division and District.	Name of estate or tract under settlement.	Date of inception of operations.	Estimated area in square miles under settlement.	Total number of villages.	Area cadastrally surveyed in square miles.			In which records were prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
										Government
										Nil.
										II.—Other
Patna.										*(a)—Ori*
Gaya ...	Gaya District ...	October, 1912...	4,268	6,782	4,628	...	4,628	4,628	...	4,628
Shahabad ...	Shahabad District ...	November, 1908	4,260	6,018	4,260	...	4,260	4,260	...	4,260
Chota Nagpur.										
Hazaribagh ...	Hazaribagh District...	October, 1909...	6,908	7,007	6,908	...	6,908	6,908	...	6,908
Palamau ...	Palamau District ...	November, 1913	4,535	...	2,631	1,147	3,778	2,631	1,147	3,778
Patna.										*(b)—Revision*
Gaya ...	Gaya District ...	October 1913...	33	52	33	...	33	33	...	33
Tirhut.										
Champaran ...	Champaran District...	September, 1913	3,254	2,853	3,254	...	3,254	3,254	...	3,254
Saran ...	Saran District, Thanas Mirgnj and Sewan.	October, 1915	2,674	4,865	47	722	769	47	721	768
Chota Nagpur.										
Singhbhum ...	The Kolhan Government Estates.	October 1913...	1,367	913	1,367	..	1,367	1,367	...	1,367
	Total ...	...	27,659	28,490	23,128	1,869	24,997	23,128	1,868	24,996

DIX I.

Part I of the Report.]

during the year ending 30th September, 1916.

are to the nearest square mile.

SQUARE MILES.													
In which attestation was completed.			In which draft publication was completed—			In which final publication was completed—			Cost of operations—			Total cost-rate in the operations shown as completed in this return.	
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
									Rs.	Rs.	Rs.		
LAND REVENUE.													
Estates.													
SETTLEMENTS.													
ginal.													
3,006	1,622	4,628	3006	1,622	4,628	1,396	1,608	3,004	8,99,595	2,41,831	11,41,426	...	...
4,260	...	4,260	4,260	...	4,260	4,260	...	4,260	13,55,964	10,992	13,66,956	...	...
6,908	...	6,908	6,908	...	6,908	6,882	..	6,882	16,74,473	18,110	16,93,583	...	...
1,172	1,414	2,586	1,172	1,414	2,586	...	1,172	1,172	4,05,481	2,42,443	6,47,924	...	...
al.													
33	...	33	33	...	33	33	...	33	40,889	...	40,889	...	...
1,512	1,743	3,254	1,512	1,743	3,254	...	1,494	1,494	4,98,689	1,10,545	6,09,234	...	...
...	...	...	...	...	...	...	...	...	5,672	1,82,173	1,87,845	...	...
636	...	636	636	...	636	...	102	102	2,18,539	82,417	3,00,956	...	...
17,527	4,779	22,306	17,527	4,779	22,306	12,571	4,376	16,947	50,98,657	8,88,956	59,87,613	...	...

APPENDIX II.

[*See* Chapter II of Part I of the Report.]

PART A.

Progress in Settlement of Rents under section 104, *Act VIII of* 1885, *in areas that were under settlement of Land Revenue during the year ending* 30*th September*, 1916.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents were proposed.			Number of villages for which settlement rent-roll was published in draft—			Objections under section 104E.		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	Instituted—		
										To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Gaya ...	21·41	27	3,210	...	3,205	3,205	...	11	11	...	358	358

Estate or tract under settlement.	Objections under section 104E.			Number of villages and tenants of which during the year a settlement rent-roll has been confirmed.						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			To the end of the previous year.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent. + or —
1	14	15	16	17	18	19	20	21	22	23	24	25
Gaya ...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX II.

PART B.

Progress in Settlement of Rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1916.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109 (c), Bengal Tenancy Act.				Number of section 105 cases which were instituted—			
								To the end of the previous year.		During the year.	
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12
					Rs.	Rs.	Rs.				
Gaya ...	1,622	2,506	1,88,712	127	2,502	...	2,405	1,050	8,223	139	2,849
Hazaribagh ...	6,908	7,007	...	...	...	...	...	4,940	55,069	1	5
Do. Section 85 (2) (ii), C.N.T. Act.	...	...	...	...	...	...	...	356	3,058	458	1,316
Palamau, under Section 85 (3) (b).	...	...	...	...	...	...	...	4	133	...	...
Do. Section 85 (2), (i) C.N.T. Act.	...	...	...	...	...	...	...	...	...	359	...
Champaran ...	3,254	2,853	5,46,098	6,269	89,924	56,097	89,118	...	...	3,444	1,01,060

Estate or tract under settlement.	Number of section 105 cases which were instituted.		Number of cases which were disposed of—						Of tenants in column 18.		
	Total.		To the end of the previous year.		During the year.		Total.				
	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Former rental.	New rental.	Difference per cent. + or −.
1	13	14	15	16	17	18	19	20	21	22	23
									Rs.	Rs.	
Gaya	1,195	172	854	7,624	229	892	1,083	8,516	14,091	15,499	+10
Hazaribagh ...	4,941	55,374	1,842	20,312	1,437	24,504	3,279	44,816	1,71 0	1,62,115	18·21
Ditto Section 85 (2) (ii), C.N.T. Act.	814	4,374	356	3,058	458	1,316	814	4,374	13,126	13,994	6.61
Palamau under Section 85 (3) (b).	4	133	4	133	...	...	4	133	...	...	...
Ditto, section 85 (2) C.N.T. Act.	359	...	...	...	11	1	11	1	100	30	70
Champaran ...	3,444	1,01,060	...	...	501	5,765	501	5,765	47,191	50,408	

APPENDIX III.

Statement showing the nature and number of the holdings recorded in each settlement during the year ending 30th September, 1916.

Name of estate or tract under settlement.	Number of Khatians recorded in the name of—													Remarks.
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.	
	As private lands.	Not as private lands.						Service tenure.	Others.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Other Settlements.														
(a) Original.														
Gaya	...	2,965	3,862	4,022	1,83,766	26	898	3,753	5,175	12,007	840	2,20,315	2,498	
Palamau	170	4,373	...	...	*120 29,422	8,158	1,832	2,120	2,115	4,794	188	53,607	3,379	
(b) Revisional.														
Champaran ...	260	1,800	7,906	2,672	2,67,381	1,018	13,790‡	3,312	7,174	10,646	1,114	3,17,673	27,351	‡Includes 6,317 ai.ra raiyats.

* Khuntkatti.

APPENDIX IV.

[*See* Chapter II, Part I of the Report.]

Showing the progress made in recovery of costs during the year ending 30th September, 1916.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.						Grand Total collected.	Balance.		
						Landlords' share.			Occupiers' share.						
			Landlords' share.	Occupiers' share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.		Landlords' share.	Occupiers' share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Gaya	Gaya district	3,27,398	1,59,327	4,86,725	3,22,205	4,927	3,27,132	1,59,235	91	1,59,326	4,86,459	266	...	266
Chota Nagpur	Hazaribagh	Hazaribagh District	3,15,320	1,38,340	4,53,660	2,58,165	25,418	2,83,583	1,37,894	104	1,37,998	4,21,681	31,637	342	31,979

APPENDIX V.

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1916.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies. col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*		*b*			
Patna Division.																Rs.
Patna ...	41 Estates ...	47,381·84	7,042	22	21	461	22	...	1	4	...	487	44	7·54	1,533·33	146
Gaya ...	11 Estates ...	54,672·07	5,245	49	176	218	3	...	22	2	...	269	201	8·96	1,723·29	76
Shahabad ...	25 Estates ...	50,250·63	10,383	87	25	85	14	10	20	2	6	184	65	2·39	632·26	96
Tirhut Division.																
Darbhanga ...	Bakhtiarpur ...	1,104·95	522	6	22	12	...	...	2	...	...	18	24	8·04	101·40	100
Do. ...	Hardaspur ...	309·00	1	...	...	...	...	...	...	..	...	...	...	...	...	...
Saran ...	Makhdumganj ...	222·65	129	4	...	4	...	...	...	...	...	8	...	6·20	8	100
Do. ...	Mudha ...	360·11	254	4	...	11	2	...	2	2	...	17	4	8·27	1·50	347
Do. ...	Ramdaschak ...	2·25	4	...	...	...	...	...	...	...	..	...	...	...	...	...
Do. ...	Deopura ...	22·59	41	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kaithwalia ...	82·32	74	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ..	Bangra ...	970·26	215	...	...	2	2	...	...	...	...	2	2	1·8	...	...
Bhagalpur Division.																
Santal Parganas ...	7 Estates ...	193,497·62	4,446	69	12	310	46	...	1	...	...	449	58	11·40	290·08	802
Bhagalpur ...	Diara Estates ...	23,360·32	2,153	30	44	24	...	4	...	...	...	58	44	4·73	510·14	50
Do. ...	Sadar Khas Mahal...	219·46	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Railway B. class land	253·66	122	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Madhipura ...	3,358·38	623	17	1	35	...	...	...	...	...	52	1	8·50	250	100
Do. ...	Supaul ...	4,217·22	220	4	...	6	...	...	...	...	...	10	...	4·54	10·29	22
Monghyr ...	Diara and other Estates.	66,271	13,234	50	34	17	11	7	...	4	7	78	52	·98	366·72	93
Purnea ...	Belwa Harinkhori...	4,881·26	1,119	2	2	16	...	...	...	...	1	18	3	1·87	58·15	26
Do. ...	Bagmara ...	1,834·26	105	3	...	1	...	...	...	...	...	4	...	3·80	285·18	3
Do. ...	Soharia Subhai ...	227·19	40	...	...	1	...	...	...	...	...	1	...	2·5	3·70	...
Do. ...	Bishania Chandpur...	39·83	8	...	...	1	...	...	...	...	...	1	...	12·5	12·28	...
Orissa Division.																
Cuttack ...	Banki ...	75,030·45	36,171	244	1,052	743	1,448	102	680	5	13	1,094	3,223	11·03	553·85	166
Balasore ...	Bichitrapur ...	3,546·31	980	4	3	...	...	...	...	...	...	4	3	0·71	8·34	50
Do. ...	Nayanand Birso ...	17,987	11,573	24	134	8	12	...	2	...	...	32	148	1·5	127·30	101
Do. ...	Chandbali ...	178	130	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Bhadruk Salt Gola	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Angul ...	Angul ...	577,376	33,110	11	103	790	1,526	25	68	5	9	831	1,706	8	175·20	60
Puri ...	Khurda ...	575,495	2,18,430	5,634	6,846	183	79	15	56	49	30	5,881	7,011	5·91	6,622·10	178
Do. ...	Kodhar ...	5,276·52	1,390	6	22	...	9	...	2	...	...	6	33	2·80	...	...
Do. ...	Balukband ...	573·67	3 4	4	...	...	...	...	...	...	...	4	...	1·19	2·38	120
Sambalpur ...	Thikadari ...	735,754·30	37,973	92	410	909	49	12	29	22	11	1,025	499	4	13,315·55	25
Do. ...	Raiyatwari ...	8,137·90	307	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Zamindari ...	153,622·10	4,713	32	62	110	11	2	3	2	2	146	78	5	1,935·05	20
Chota Nagpur Division.																
Hazaribagh ...	Kharagdiha ...	47,201	1,844	...	...	49	9	...	2	...	...	49	11	3·25	1,008·01	...
Do. ...	Hata ...	7,270·37	2,185	1	7	5	9	...	...	...	...	6	16	1	19·56	44
Do. ...	Kodarma ...	36,460	3,231	...	...	119	152	...	7	...	3	119	162	8·09	1,167·45	200
Ranchi ...	Barkagarh ...	67,394·62	6,650	87	...	402	...	...	...	1	...	490	...	7·3	...	175
Do. ...	Patia ...	5,185·84	746	...	...	24	...	...	...	...	...	24	...	3·2	...	...
Do. ...	Silum	3,058·30	68	...	...	1	...	...	...	...	...	1	...	1·13	...	...
Do. ...	Doranda ...	259·97	18	...	...	...	...	...	...	...	..	...	...	...	...	...
Do. ...	Kadru	140·39	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Hinu	114·71	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kusai	87·82	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Palamau ...	Palamau and Baldihri.	272,371·83	17,328	...	...	616	349	3	13	...	...	619	362	5·66	4,629·27	.
	Total ...	3,046,125·63	4,73,252	6,486	9,006	5,233	3,752	180	910	98	82	11,997	13,750	6·08	35,350·38	121

APPENDIX V—*concld.*

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1916.

WARDS' ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*)÷(*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Gaya	Maksudpur ...	31,678	5,360	11	20	69	8	3	11	...	...	83	48	2·4	715	20
Tirhut Division.																
Saran	Majhaulí ...	21,326	4,740	5	1	6	...	...	...	...	1	11	2	·27	16·54	200
Do.	Mashrakh ...	8,799	5,321	8	...	3	1	...	...	...	...	11	1	·22	25·36	200
Do.	Chautaria ...	5,516	2,411	3	...	...	...	...	...	...	...	3	...	·1	·9	200
Muzaffarpur, Champaran and Saran.	Bettiah	13,75,638·20	2,30,303	153	18	410	...	1	...	18	...	582	18	·26	523·16	113
Muzaffarpur ...	Sursand No. I ...	14,585·56	6,599	25	22	443	...	...	8	...	...	468	30	7·55	972·79	154
Do. ...	Do. No. II ...	6,045·54	3,087	10	11	282	...	...	...	...	...	292	11	9·8	550·40	104
Do. ...	Mahtha Estate ...	8,619·95	3,458	6	25	149	...	3	3	1	...	159	28	5·35	11·2	936
Darbhanga, Patna, Muzaffarpur and Monghyr.	Narhan	73,548·01	23,556	101	156	926	...	...	1	1	...	1,028	157	5	293·28	117
Bhagalpur Division.																
Santhal Parganas ...	Sankara ...	51,712	155	...	...	6	...	...	...	...	...	6	...	3·8	3,577·3	...
Do. ...	Punasi ...	21,542	251	...	...	2	...	...	...	...	...	2	...	·8	92·3	...
Bhagalpur	Shahpur ...	7,069	1,501	1	3	...	...	...	3	...	...	1	6	·46	18·1	50
Do.	Lagma ...	7,350	1,909	5	13	4	...	...	5	...	...	9	18	1·4	70	50
Do.	Sonbarsa ...	65,044·12	15,177	20	...	354	...	...	...	...	...	374	...	2·4	1,549·19	20
Do.	Barari	56,611	23,983	79	4	195	1	...	...	...	...	274	5	1·16	1,209	32
Do.	Sukhpur ...	18,357·86	4,051	6	3	...	...	...	...	...	...	6	3	·22	25·90	30
Do.	Bhupendra Narain Estate.	65,344	11,766	14	75	174	...	...	...	...	...	188	75	2·2	1,605·40	24
Monghyr	Bahadurpur ...	51,684	10,765	71	4	262	...	...	10	...	...	333	14	3·22	576	40
Do.	Shakarpura ...	9,728	2,951	23	19	45	...	...	...	...	...	68	19	2·91	211	24
Orissa Division.																
Cuttack	Darpan ...	68,727	26,961	108	299	525	447	2	8	4	8	639	762	5·19	291·87	73
Do.	Dompara ...	53,469·46	8,784	38	212	125	112	...	1	...	2	163	327	5·5	154·72	74
Balasore	Kaupur ...	24,258	8,335	23	69	1	...	...	...	...	...	24	69	1·1	68	62
Puri	Parikud ...	44,275·95	6,314	55	63	563	14	7	7	3	1	628	85	11	400·17	26
Chota Nagpur Division.																
Ranchi	Jonha ...	21,018	426	...	...	12	...	...	...	...	...	12	...	2·8	...	...
Do.	Siri ...	41,600	722	...	...	1	...	...	...	...	...	11	...	1·5	...	...
Do.	Chakla ...	5,901	303	...	...	13	...	...	...	...	...	13	...	4·2	...	...
Do.	Hatma ...	25,216	657	...	...	14	...	...	...	...	...	14	...	2·1	...	...
Do.	Tuguddanda ...	5,328	372	...	...	12	...	...	...	...	...	12	...	3·2	...	...
Do.	Guru ...	3,424	201	...	...	11	...	...	...	...	...	11	...	5·4	...	...
Do.	Banapiri ...	1,825	248	...	...	7	...	...	...	...	...	7	...	2·8	...	...
Do.	Jingi ...	12,461	186	...	...	6	...	...	...	...	...	6	...	3·2	...	...
Do.	Bajpur ...	8,111	438	...	...	21	...	...	...	...	...	21	...	4·7	...	...
Do.	Chorea ...	7,186	434	...	...	5	...	...	...	...	...	5	...	1·1	...	...
Do.	Barki Beura ...	18,592	212	...	...	6	...	...	...	...	...	6	...	2·8	...	...
Do.	Parba ...	34,929	170	...	...	1	...	...	...	...	...	1	...	·58	...	...
Do.	Biru ...	6,26,094	2,112	...	...	62	...	...	...	...	...	62	...	2·9	...	...
Do.	Armai ...	2,65,253	3,442	...	...	63	...	...	...	...	...	63	...	1·8	...	...
Do.	Redwa ...	31,360	165	...	...	3	...	...	...	...	...	3	...	1·8	...	...
Do.	Bhargaon ...	2,683	203	...	...	7	...	...	...	...	...	7	...	3·4	...	...
Do.	Jamudag ...	6,654	324	...	...	2	...	...	...	...	...	2	...	·6	...	...
Do.	Oreydaru ...	3,840	187	...	...	6	...	...	...	...	...	6	...	3·2	...	...
Do.	Loahatu ...	15,360	427	...	...	4	...	...	...	...	...	4	...	·9	...	...
Do. ...	Burhadih ...	18,875	398	...	...	34	...	...	...	...	...	34	...	8·5	...	...
Do. ...	Jeria	3,35,738	3,304	...	...	162	...	...	...	...	...	162	...	4·9	...	...
Manbhum ...	Barabhum ...	4,10,772	5,392	6	15	3	...	...	8	...	...	9	23	5·9	123	...
Do.	Patkum ...	1,90,537	3,861	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Naro ...	9,336·77	815	1	...	...	...	...	...	...	...	1	...	·1	53·50	...
Do.	Tinsaya ...	12,487	114	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Dhadka ...	12,935	431	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Matha ...	13,375	402	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	42,31,824·42	4,33,084	772	1,041	5,009	583	16	65	27	12	5,824	1,701	1·7	13,114·08	121

APPENDIX-VI.

[*See* Chapter III of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1916.

GOVERNMENT ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Patna	Government Estates	63	64·21	63	64·21
Gaya	Ditto ...	48	51·63	35	48·23
Shahabad	Ditto ...	13	77·19	16	62·69
BHAGALPUR DIVISION.					
Santal Parganas ...	Nayabazar ...	1	6·62	1	6·62
Do.	Dumka ...	3	·18	3	·18
Bhagalpur	Diara Estate ...	13	18	13	18
Do.	Madhipura ...	4	107	4	107
Do.	Supaul ...	1	2·13	...	...
Monghyr	Diara and other Estates.	48	298·02	47	297·99
ORISSA DIVISION.					
Cuttack	Banki	47	40·54	16	17·62
Balasore	Bichitrapur ...	...	...	4	3·85
Do.	Nayanand Birso ...	1	0·97	...	...
Angul	Angul ...	92	355·42	34	86·30
Puri	Khurda ...	35	22·35	27	4·72
Sambalpur	Thikadari ...	4	11·48	4	11·48
Do.	Zamindari ...	1	0·08	...	...
CHOTA NAGPUR DIVISION.					
Hazaribagh	Kharagdiha ...	1	1·02	1	1·02
Do.	Hata ...	15	10·78	15	10·78
Do.	Kodarma ...	7	22·45	6	11·27
Palamau	Palamau and Baldihri	494	2,577·83	272	1,564
	Total ...	891	3,667·90	561	1,315·96

APPENDIX VI—*concld.*

[*See* Chapter III, of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1916.

WARDS' ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Gaya	Maksudpur ...	34	150	26	115
Shahabad	Bijaigarh ...	4	8·1	...	...
Do.	Chowgain ...	162	445·18	...	...
TIRHUT DIVISION.					
Saran	Masrakh ...	3	4·3	2	3·96
Do.	Chautaria ...	8	15·11	4	6·78
Do.	Majhauli ...	21	10·56	15	8·91
Muzaffarpur, Champaran and Saran.	Bettiah ...	126	208·91	124	208·91
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	279	684·70	83	186·15
Muzaffarpur... ...	Sursand No. I ...	21	22·22	15	19·23
Do.	Sursand No. II ...	17	14·11	4	3·83
Do.	Mahtha ...	25	27·62	2	2·40
BHAGALPUR DIVISION.					
Bhagalpur ...	Bhupendra Narayan Estate.	393	1,201·50	42	220·24
Do.	Sukhpur ...	106	123·26	13	66·22
Do.	Barari ...	37	44	5	·41
Do.	Sonbarsa ...	1,673	3417·3	69	168·30
Do.	Shahpur ...	...	...	5	12
Monghyr	Shakarpura ...	416	1,127	39	189
Do.	Bahadurpur ...	300	1,031	68	566
ORISSA DIVISION.					
Cuttack	Darpan ...	146	111·65	46	49·9
Do.	Dompara ...	6	3·04	6	3·0
Puri	Parikud ...	100	316·18	20	74·4
CHOTA NAGPUR DIVISION.					
Manbhum	Patkum ...	49	192	...	
Do.	Naro ...	28	56	1	2·50
Do.	Tisnaya ...	3	11	1	·75
Do.	Dhadka ...	11	21	...	...
	Total ...	3,968	9,246·04	590	1,907·99

APPENDIX VII.

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1916.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks, (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates	816	2,604·43	Otherwise.
Gaya ...	Ditto ...	117	248·99	
Shahabad ...	Ditto ...	22	19·37	
Tirhut Division.				
Darbhanga ...	Bakhtiarpur ...	9	1·07	Otherwise.
Do. ...	Hardaspur ...	1	7·66	
Bhagalpur Division.				
Santal Parganas	Hiranpur ...	2	·15	Settlement rate.
Monghyr ...	Diara Estate ...	94	534·13	Ditto.
Do. ...	Sadar Khas Mahal	1	·02	
Do. ...	Taluqa Bhawanandpur.	1	·06	
Bhagalpur ...	Diara Estate ...	4	16·98	Otherwise.
Purnea ...	Sahoria Subhai ...	2	4·54	Do.
Orissa Division.				
Cuttack ...	Banki ...	172	119·08	Settlement rates.
Balasore ...	Bichitrapur ...	9	6·42	
Angul ...	Angul ...	305	456·88	
Puri ...	Khurda ...	216	202·19	
Do. ...	Balukhand ...	8	2·12	Otherwise.
Sambalpur ...	Thikadari ...	82	186·26	Settlement rates.
Do. ...	Raiyatwari ...	1	5·18	
Do. ...	Zamindari ...	23	22	Otherwise.
Chota Nagpur Division.				
Hazaribagh ...	Kharagdiha ...	46	152·24	Otherwise.
Do. ...	Hata ...	3	39·42	
Do. ...	Kodarma ...	32	77·35	
Palamau ...	Palamau and Baldihri.	20	13·84	Settlement rate.
Ranchi ...	Barkagarh ...	58	377·68	Settlement rates.
Do. ...	Patia ...	8	3·86	
Do. ...	Kadru ...	1	·45	
Do. ...	Doranda ...	1	·17	
Do. ...	Silum ...	3	2·50	
	Total ...	2,057	5,101·54	

APPENDIX VII—*concld.*

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1916.

WARDS' ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise)
1	2	3	4	5
Patna Division.				
Gaya ...	Maksudpur ...	47	46	Otherwise.
Shahabad ...	Surajpura No. I ...	60	234·40	
Do. ...	Kusambhara ...	5	22·62	
Do. ...	Chowgain ...	10	26·6	
Tirhut Division.				
Saran ...	Majhauli ...	11	9·40	Settlement rates.
Do. ...	Masrakh ...	15	3·85	
Do. ...	Chautaria ...	2	6·2	
Muzaffarpur, Champaran and Saran.	Bettiah ...	104	135·18	Village rates.
Darbhanga, Muzaffarpur, Patna and Monghyr.	Narhan ...	33	7·81	Settlement rate.
Muzaffarpur ...	Sursand No. I ...	100	27·11	Otherwise.
Do. ...	Sursand No. II ...	51	16·59	
Bhagalpur Division.				
Bhagalpur ...	Lagma ...	2	1·96	Otherwise.
Do. ...	Sonbarsa ...	257	428·33	
Do. ...	Barari ...	28	170·6	Village rates.
Do. ...	Sukhpur ...	19	64·62	
Do. ...	Bhupendra Narain Estate.	28	151·90	Settlement rates.
Monghyr ...	Bahadurpur ...	32	57	Otherwise.
Do. ...	Shakerpura ...	10	18	
Orissa Division.				
Cuttack ...	Darpan ...	61	8·27	Village rates.
Do. ...	Dompara ...	41	42·97	
Puri ...	Parikud ...	5	6·61	
Chota Nagpur Division.				
Ranchi ...	Barkibeura ...	7	12·09	Otherwise.
Do. ...	Armai ...	8	17·10	
Do. ...	Jeria ...	2	·65	
Do. ...	Siri ...	1	·50	
Do. ...	Tupudana ...	6	7·45	
Manbhum ...	Patkum ...	4	1·33	Settlement rates.
Do. ...	Dhadka ...	1	1	
Do. ...	Barabhum ...	1	1	
	Total ...	951	1,526·57	

APPENDIX VIII.

[*See* Chapter III, Part I of the Report.]

Showing the results of the inspection of rent-rolls for the year ending 30th September, 1916.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government Estates ...	79	7,042	79	6,654	94·49	491	75	5,082	72·16	1
Gaya	Do. ...	104	5,352	104	5,352	100	230	46	3,113	58·16	241
Shahabad ...	Do. ...	192	10,614	167	8,065	75·98	160	123	9,596	90·48	...
Tirhut Division.											
Saran	Makhdumganj ...	3	129	3	129	100	...	3	129	100	...
Do.	Mudha	2	254	2	254	100	...	1	205	80·71	...
Do.	Ramdasehak ...	2	4	2	4	100	...	2	4	100	...
Do.	Deopura	1	41	1	41	100	...	...	...	...	...
Do.	Kaithwalia ...	1	74	1	74	100	...	...	...	...	...
Do.	Bangra	8	215	8	215	100	...	8	41	19·5	...
Darbhanga ...	Bakhtiarpur ...	2	522	2	522	100	...	...	...	...	...
Do.	Hardaspur ...	1	1	1	1	100	...	...	...	...	...
Bhagalpur Division.											
Santal Parganas ...	Sahibgunj ...	8	2,502	8	2,502	100	197	8	136	5·43	...
Do. ...	Other Khas Mahals ...	9	561	9	561	100	...	7	86	15·32	...
Do. ...	Nayabazar ...	1	50	1	50	100	...	1	10	20	...
Do. ...	Railway B. class land.	9	113	9	113	100	...	9	58	51·32	...
Do. ...	Bijaypur relinquished land.	1	9	1	9	100	...	1	6	66·66	...
Do. ...	Hiranpur	1	152	1	152	100	9	1	10	6·58	...
Do. ...	Amrapara	1	74	1	74	100	1	1	...	6·75	...
Bhagalpur ...	Diara Estate ...	6	2,153	6	2,153	100	95	6	2,153	100	...
Do. ...	Sadr Khas Mahals ...	7	25	7	25	100	1	7	25	100	...
Do. ...	Railway B. class lands	21	122	21	122	100	11	21	122	100	...
Do. ...	Madhipura ...	15	623	15	623	100	...	15	623	100	...
Do. ...	Supaul	19	220	19	220	100	...	19	220	100	...
Monghyr ...	Diara and other Estates.	71	13,234	71	5,200	39·29	266	63	448	18·49	100
Purnea ...	Belwa Harinkhori ...	6	1,119	6	800	71·41	86	6	600	53·61	65
Do. ...	Bagmara	9	105	9	105	100	11	9	90	85·72	8
Do. ...	Lawkahi	1	108	1	108	100	18	1	100	92·59	12
Do. ...	Soharia Sobhai ...	4	40	4	40	100	...	4	34	85	...
Orissa Division.											
Cuttack ...	Banki	144	23,826	125	11,742	49·3	590	116	1,367	5·7	498
Balasore ...	Bichitrapur ...	6	985	...	...	...	...	6	151	15·33	...
Do. ...	Nayananda Birso ...	104	11,513	...	...	...	...	...	...	...	...
Do. ...	Chandbali ...	1	130	...	...	...	...	...	...	...	...
Do. ...	Bhadrak Salt Gola ...	1	1	...	...	...	...	...	...	...	...
Angul ...	Angul	632	33,110	611	32,860	99	1,538	48	5,650	17	36
Puri ...	Kodhar	5	1,390	5	1,390	100	...	5	80	5·75	...
Do. ...	Balukhand ...	1	334	1	334	100	...	...	...	...	...
Sambalpur ...	Thikadari ...	757	37,973	757	24,274	64	1,534	2	240	1	8
Do. ...	Raiyatwari ...	17	307	17	305	99	...	...	...	...	...
Do. ...	Zamindari ...	184	4,713	183	1,674	36	224	...	...	...	...
Chota Nagpur Division.											
Hazaribagh ...	Kharagdiha ...	146	1,844	59	527	28·6	9	...	...	...	...
Do. ...	Hata	23	2,185	21	2,141	98·43	22	21	358	16·38	...

APPENDIX VIII—*continued.*

GOVERNMENT ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Hazaribagh ...	Koderma ...	101	3,231	49	2,266	70·13	152	2	221	58·82	48
Palamau ...	Palamau and Baldehri	399	17,328	355	14,097	81·35	...	89	6,086	35·12	...
Ranchi ...	Barkagarh ...	89	6,650	71	5,356	80·6	...	28	2,548	38·3	...
Do. ...	Patia	9	746	7	608	81·5	...	3	352	47·1	...
Do. ...	Silum	1	88	...	...	...	...	1	15	17·4	2
Do. ...	Doranda	1	18	1	18	100	...	1	18	100	...
Do. ...	Kadru	1	40	1	40	100	...	1	40	100	...
Do. ...	Hinu	1	2	1	2	100	...	1	2	100	...
Do. ...	Kusai	1	3	1	3	100	...	1	3	100	...
	Total ...	3,208	191,875	2,815	131,805	68·6	5,645	7,762	35,022	18·2	1,009

APPENDIX VIII—*continued.*

WARDS' ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Gaya ...	Maksudpur ...	67	5,360	66	3,813	71·1	17	67	4,573	85·3	12
Tirhut Division.											
Saran	Majhauli	68	4,740	27	2,572	54·2	92	7	269	5·6	63
Do.	Mas akh	52	5,321	23	2,700	50·7	269	13	319	5·9	69
Do.	Chautaria	36	2,411	22	1,219	50·5	79	4	129	5·3	22
Muzaffarpur ...	Bettiah ... Kham...	447	30,113	208	6,756	22·43	...	239	23,357	77·56	...
Saran	Bettiah ... hika...	1,412	2,00,310	...	...	...	...	...	...	...	...
Darbhanga ...											
Darbhanga ...	Narhan ...	196	23,556	196	23,556	100	1,987	29	3,682	15·6	702
Patna ...											
Muzaffarpur ...											
Monghyr ...											
Muzaffarpur ...	Sursand estate No. I ..	155	6,599	155	6,599	100	...	29	1,311	19·8	...
Do. ...	Ditto No. II...	88	3,087	88	3,087	100	...	24	977	31·6	...
Do. ...	Mahtha	61	3,458	42	2,938	84·9	185	19	1,260	34·7	5
Bhagalpur Division.											
Santal Parganas	Sankara	109	155	109	155	100	11	...	...	...	...
Bhagalpur ...	Shahpur	27	1,500	24	1,338	90	...	...	...	...	...
Do. ...	Lagma	22	1,909	20	1,615	90	...	...	...	...	...
Do. ...	Sonbarsa	124	15,177	124	15,177	100	...	124	15,177	100	...
Do. ...	Barari	583	23,983	554	19,440	81	...	...	...	...	...
Do. ...	Sukhpur	42	4,051	24	2,600	62·9	10	...	...	...	...
Do. ...	Bhupendra Narain estate	121	11,766	115	5,768	49·02	87	...	...	...	...
Monghyr ...	Bahadurpur ...	41	10,765	41	8,325	77	...	...	...	...	...
Do. ...	Shakarpura ...	21	2,951	21	2,235	76	...	...	...	...	...
Orissa Division.											
Cuttack ...	Darpan	348	26,961	244	16,759	62·17	972	24	1,685	6·25	425
Do. ...	Dompara	28	6,719	28	6,719	100	...	21	650	9·6	...
Puri	Parikud	65	6,814	65	4,300	68	...	38	1,044	16	20
Balasore ...	Kaupur	125	8,335	...	...	...	...	...	...	...	...
Chota Nagpur Division.											
Ranchi ...	Armai	126	3,442	85	1,866	54·2	...	11	350	10·1	...
Do.	Biru	185	2,112	98	1,250	58·1	...	18	186	8·8	...
Do.	Kulmunda ...	12	298	6	153	51·3	...	3	29	9·4	...
Do.	Masmano	18	715	13	516	72·1	...	6	69	9·6	...
Do.	Bajpur	7	438	4	267	60·9	...	3	37	8·4	...
Do.	Jeria	309	3,304	188	1,897	57·4	...	26	290	8·7	...
Do.	Parba	39	170	22	98	57·6	...	2	28	16·4	...
Do.	Barkibeura ...	9	212	5	149	70·2	...	2	28	13·2	...
Do.	Jamudag	43	324	31	280	86·4	...	8	76	23·4	...
Do.	Oreydaru	1	187	1	124	66·3	...	1	28	15	...
Do.	Sarjamdih... ...	34	752	28	535	71·1	...	3	102	13·6	...
Do.	Janampiri... ...	22	964	18	192	72·7	...	2	58	21·9	...
Do.	Loro	11	264	6	143	54·1	...	2	26	9·8	...
Do.	Siri	79	722	40	395	54·7	...	9	48	6·6	...
Do.	Tamar	79	1,057	62	890	84·1	...	11	75	7·1	...
Do.	Burhadih	12	398	7	253	63·5	...	2	85	21·3	...
Do.	Hatma	36	657	21	400	60·8	...	6	98	14·9	...
Do.	Hazam	1	172	1	148	86	...	1	43	25	...

APPENDIX VIII—*concluded.*

WARDS' ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Ranchi ...	Tupudana	9	372	6	205	55·1	...	3	80	18·5	...
Do.	Loahatu	10	427	7	285	66·7	...	3	92	21·5	...
Do.	Mardhan	21	397	13	245	61·7	...	2	58	14·6	...
Do.	Redwa	4	165	2	102	61·8	...	2	28	16·9	...
Do.	Barenda	22	678	12	442	65·2	...	5	139	20·5	...
Do.	Chakla	5	308	3	198	65·3	...	1	25	8·2	...
Do.	Guru	3	201	2	178	88·5	...	1	18	8·9	...
Do.	Jonha	27	426	19	282	66·1	...	3	70	16·4	...
Do.	Kanabaruhatu ...	12	190	7	113	59·4	...	2	40	21·1	...
Do.	Tarai	13	223	8	113	50·6	...	3	28	12·5	...
Do.	Bhargaon	6	203	3	108	53·2	...	2	42	20·6	...
Do.	Harmu	1	71	1	52	73·2	...	1	16	22·5	...
Do.	Chorea	12	434	6	302	69.5	...	3	32	7·3	...
Do.	Pola	5	195	3	101	5·7	...	1	19	9·7	...
Do.	Banapiri	3	248	2	139	52·0	...	1	29	11·7	...
Do.	Jingi	16	198	9	105	53·0	...	3	16	8·8	...
Do.	Narekel	3	161	2	62	61·3	...	1	20	19·8	...
Do.	Badla	7	560	4	292	51·3	...	3	40	7	...
Do.	Anabiri	7	224	4	132	58·8	...	2	18	8	...
Manbhum ...	Patkum	262	3,861	262	3,861	100	...	50	2,301	59·59	...
Do. ...	Naro	15	815	15	815	100	...	14	701	86	...
Do. ...	Tinsaya	24	114	24	114	100	...	5	65	57	...
Do. ...	Matha	19	402	19	402	100	...	17	332	82·6	...
Do. ...	Dhadka	30	431	30	431	100	...	12	235	54 5	...
Do. ...	Barabhum... ...	265	5,392	175	3,204	59·4	11	20	215	3·9	...
	Total ...	6,062	4,38,874	3,470	1,59,510	36·3	3,709	914	60,088	13·8	1,408

APPENDIX IX.

[*See* Chapter IV, Part I of the Report.]

Result of Inspection of Boundary marks during the year ending the 30th September, 1916.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT ESTATES AND TEMPORARILY-SETTLED ESTATES.										
Patna Division.										
Patna	37	23	716	710	697	11	2	5	Rs. 27. Met from Khas Mahal funds.	One person was fined Rs. 1 50 and one acquitted
Gaya	117	117	1,238	1,238	1,237	...	1	1	...	
Shahabad	152	43	1,146	1,146	1,141	...	5(*a*)	3	Rs. 2-5. Met from grant from Boundary Marks fund.	
Tirhut Division.										
Saran	8	8	315	315	315	...	...	...	...	
Champaran	Not reported.			9	9	...	...	...	...	
Muzaffarpur	10	8	33	33	23	...	10	...	...	
Darbhanga	2	2	56	56	56	...	...	...	...	
Bhagalpur Division.										
Bhagalpur	27	26	114	80	39	...	41	10	...	
Santal Parganas ...	8(*b*)	8	4,233	395	394	1	...	1	Rs. 2-8. Cost realized from headmen and raiyats concerned.	
Orissa Division.										
Cuttack	5,682	5,682	9,858	9,858	9,460	...	398	...	...	
Balasore	Not reported.			3,165	3,011	...	154	...	...	
Angul and Khondmals ...	1	2	2,701	567	506	60	1	...	...	
Puri	501	501	7,175	7,175	7,148	...	27	...	...	
Sambalpur	1,938(*c*)	1,914	59,807	59,807	59,743	36	28	...	...	
Chota Nagpur Division.										
Ranchi	7	7	275	212	212	...	...	...	...	
Palamau	2	2	17,125	17,125	14,448	2,382	295	2,546	Restored by tenants.	
Hazaribagh	3	3	1,873	1,873	1,811	62	...	...	...	
Singhbhum	1	1	2,745	2,541	2,237	304	...	30	...	
Total ...	8,496	8,347	108,410	106,305	102,487	2,856	962	2,596		
WARDS' ESTATES.										
Tirhut Division.										
Saran	273	273	2,515	1,897	1,707	105	85	...	...	
Champaran	1,692	1,692	Not known.	4,576	3,822	541	213	(*d*)	...	

(*a*) Washed away by the river Ganges. Cannot be restored till the bed of the river recedes to its former position.

(*b*) Surveyed under Regulation III of 1872.

(*c*) Surveyed under Section 27 of the Land Revenue Act of Central Provinces.

(*d*) Rs. 220 was expended by the Bettiah Ward's Estate in the purchase of stone pillars. The stones have been sent out to Thikadars and Tahsildars to replace the damaged or missing marks.

APPENDIX IX—*concluded.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
WARDS' ESTATES—*concld.*										
Muzaffarpur	25	25	704	764	730	5	29	8	...	...
Darbhanga	196	196	1,048	1,048	1,003	1	44	...	...	...
Bhagalpur Division.										
Bhagalpur	380	376	2,226	1,705	1,629	5	71	...	...	...
Orissa Division.										
Cuttack	2	2	420	420	411	...	9	4	Cost met from Wards' Estates' Funds.	...
Chota Nagpur Division.										
Ranchi	37	37	427	1,397	1,397	...	...	...	...	...
Manbhum	2	2	1,640	1,640	829	405	403	...	...	...
Singhbhum	1	1	3,240	3,240	3,233	...	4	...	...	...
Total ...	2,608	2,604	12,280	16,687	14,764	1,062	831	12	...	...
ZAMINDARI ESTATES.										
Patna Division.										
Patna	2,578	2,578	5,412	5,412	5,030	382	...	382	Rs. 715-8-6. Met from Boundary Marks Fund.	...
Tirhut Division.										
Saran	5,805	5,805	Not known.	11,040	9,529	921	590	...	...	...
Champaran	Not reported.			2,522	2,477	5	40	...	...	...
Muzaffarpur	3,765	4,275	21,736	13,987	13,365	329	323	62	...	...
Bhagalpur Division.										
Monghyr	Not reported.			647	507	...	140	133(*e*)	...	...
Bhagalpur	3,071	3,071	7,610	4,227	3,901	77	249	5	Rs. 11-2-6. Met from grant from Boundary Marks Fund.	...
Purnea	Not reported.						34	...	...	
Santal Parganas ...	475(*f*)	475	15,098	3,527	3,483	23	22	44(*g*)	Rs. 10-1. Cost realized from landlords and tenants.	...
Orissa Division.										
Cuttack	Not reported.		1,883	1,883	1,709	...	174	...	...	...
Chotta Nagpur Division.										
Hazaribagh	Not reported.		12,649	3,928	3,458	470	...	430	...	...
Ranchi	1	1	6,320	4,090	4,084	5	1	10(*g*)	...	...
Singhbhum	1	1	1,424	1,124	1,357	60	7	22	...	...
Total ...	15,696	16,206	72,132	52,687	48,900	2,271	1,580	1,088		
GRAND TOTAL ...	26,800	27,157	192,822	175,679	166,151	6,189	3,403	3,693		

(*e*) Seven of the pillars found missing were washed away by the river Ganges. They cannot be replaced till the bed of the river recedes to its former position.
(*f*) Surveyed under Regulation III of 1872.
(*g*) Includes marks found damaged or missing last year.
N. B.—The figures against "Total" and "Grand total" in columns 2 to 4 are not complete for want of figures in certain cases.

APPENDIX X.

Statement showing progress of Survey and Settlement work in the Province by districts and divisions up to 30th September, 1916.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September, 1914, (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September, 1916, (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	2,002	119	2,121	1,947	119	2,066	55	...	55	...	...	...
Gaya	4,572	92	4,664	4,536	92	5,628	36	...	36	...	...	...
Shahabad	4,191	211	4,402	4,049	211	4,260	142	...	142	...	...	...
Divisional Total ...	*10,765*	*422*	*11,187*	*10,632*	*423*	*10,954*	*233*	...	*233*	...	...	...
Tirhut Division.												
Saran	2,633	41	2,674	...	...	769	...	...	...	...	...	1,905
Champaran	3,532	3	3,535	3,251		3,254	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,308	40	3,348	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	*12,477*	*115*	*12,592*	*9,656*	*3*	*10,328*	*288*	*71*	*359*	...	...	*1,905*
Bhagalpur Division.												
Monghyr	3,742	95	3,837	3,722	95	3,817	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	263	4,994	4,731	14	4,745	...	249	249	...	...	...
Santal Parganas	4,087	1,383	5,470	3,983	1,383	5,366	...	...	...	104	...	104
Divisional Total ...	*16,676*	*1,783*	*18,459*	*14,153*	*1,534*	*17,686*	*420*	*249*	*669*	*104*	...	*104*
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	385	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	609	609	...	223	223	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	...	463	463	...	375	375
Divisional Total ...	*2,238*	*11,526*	*13,764*	*666*	*9,655*	*10,321*	*1,016*	*696*	*2,112*	*153*	*1,875*	*1,331*
Chota Nagpur Division.												
Hazaribagh	6,859	164	7,023	6,852	56	6,908	...	52	52	7	56	63
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau	4,231	613	4,844	2,586	...	2,586	28	319	347	1,617	294	1,811
Manbhum	3,872	275	4,147	934	...	934	...	...	...	2,938	275	3,213
Singhbhum	2,572	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	*24,638*	*3,007*	*27,645*	*18,811*	*1,269*	*21,080*	*265*	*1,113*	*1,378*	*4,562*	*625*	*6,087*
Provincial Total ...	*66,794*	*16,853*	*83,647*	*53,818*	*12,883*	*70,369*	*2,622*	*2,129*	*4,751*	*4,822*	*1,800*	*8,427*

N. B.—The areas shown in this Appendix are approximate.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles), or number of sheets under preparation.		Balance remaining to be surveyed or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
I.—Traverse Surveys.							
District Surveys.							
Palamau	Traverse ,,	977	4,719	October 1912	925	4,719	Nil
Miscellaneous Surveys.							
Singhbhum (Bonai-Singhbhum) ...	Ditto	...	...	Nov. 1915	...	...	...
Balasore—Mayurbhanj (Kaptipada, Ambahatta.)	Demarcation	...	...	Do.	...	...	...
Balasore—Mayurbhanj (Olmara) ...	Ditto	...	...	Do.	...	...	...
Gangpur—Jashpur and Raigarh ...	Traverse and detail survey	...	...	Do.	...	...	...
Ganges Diara (special) ...	Stone embedding ...	...	...	...	...	...	...
Purnea—Nepal (boundary) ...	Relaying lost pillars ...	...	...	Dec. 1915	...	...	...
Purnea—Bishunpur—Bhairam, Sirsia Kalan and Gamharia.	Demarcation	...	...	Do.	...	...	...
Bhagalpur (Ratansar and Bhawanipur).	Traverse, detail survey and record-writing.	...	...	Do.	...	...	...
Shahabad (Salempur—Piparpanti)	Demarcation	...	...	Jan. 1916	...	...	...
,, (Turk Ballia) ...	Ditto	...	...	Feb. 1916	...	...	...
,, (Taranpur, Tajpur, and Bhikhampur).	Ditto	...	...	Mar. 1916	...	...	...
Monghyr (Bhimbandh, Najari and Gaighat).	Traverse and demarcation	...	...	1913—14	...	...	...
Hazaribagh—Sijua	Demarcation	...	...	Oct. 1915	...	...	...
Sambalpur (4 villages) ...	Traverse	...	...	Feb. 1916	...	...	...
Manbhum (Jharia Water works) ...	Traverse and detail survey	...	...	April 1915	...	...	...
Patna (Barh Municipality) ...	Traverse	...	...	Jan. 1914	...	...	...
Muzaffarpur (Bangra Nizamat) ...	Traverse and detail survey	...	...	Nov. 1915	...	...	...
II.—Bihar and Orissa Drawing Office.			Sheets.				
Imperial Standard Mapping Section.					72 D 14, 15 72 H 2, 10	...	...
Bihar and Orissa	Preparation of Standard Sheets.	...	72 D 9, 11, 13 72 H 1, 3, 5, 6, 9 72 O 1 72 J 4 73 A 3, 7, 10		63 P 7, 8, 11, 12, 15, 16 64 H 9, 13, 14 72 D 2, 3, 4, 6, 7 72 D 8, 10, 12 73 A 1, 2, 5, 6 9, 13 73 I 4, 8, 12 73 J 9		73 I 3, 6, 7, 10, 11, 14 73 I 15, 16

XI.

together with the expenditure incurred during the year ending 30th September, 1916.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
31,454								
1,053								
1,710								
1,296								
1,736								
896								
1,145								
1,202								
923								
463								
450								
232								
285								
70								
137								
15	...	...	...	...	...	...	...	Work completed in Survey year, 1914—15.
18	...	...	...	...	...	...	...	Ditto.
35	...	...	...	...	...	...	...	No work done.
....	...	...	...	...	...	...	...	Practically finished, but held up for certain references.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed, or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Provincial Drawing Section.							
Patna	Compilation of detailed maps of thanas— Bikram ... ... Fatwa ... ... Hilsa ... ... Islampur ... ... Masaurhi ... ... Phulwari	.....	13*	1913-14	6	11	2
Sambalpur	Jagdalpur ... ... Paikmal	.....	22	1913-14	2	22	*Nil*
Shahabad	Bikramganj ... ... Buxar ... ... Dehri ... ... Piro ... ... Sasaram	.....	20	1914-15	9	20	*Nil*
Ranchi	Angara ... ... Burmu ... ... Karra ... ... Mundar ... ... Ormanji ... ... Palkot ... ... Ranchi ... ... Silli ... ... Sisai ... ... Sonahatu	.....	41	1914-15	12	15	26
Hazaribagh	Barkagaon ... ... Gola ... ... Gumia ... ... Mandu ... ... Nawadih ... ... Pettarbar ... ... Ramgarh	.....	32	1915-16	7	7	25
Santal Parganas	Deoghar ... ... Godda ... ... Jamtara	.....	29	1915-16	12	12	17
Monghyr	Compilation of skeleton district maps.	.....	21	1913-14	1	10	11
Shahabad	Compilation of district maps.	.....	4	1915-16	4	4	*Nil*
Monghyr, Bhagalpur	Compilation of 4" Ganges Diara maps for publication sheets:— 72 K 3 & 7 / 58,59,60 ... ... 72 K 4 & 8 / 61 ... ... 72 K 7 / 62,63,64,65,66,67,68 ... 72 K10 / 69,74 ... ... 72 K11 / 70,71,72,73,75,76,77,78 72 K12 / 79	.....	138	1908-09	22	80	58

XI—*continued.*

together with the expenditure incurred duri g the year ending 30*th September,* 1915.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.				Rs.				
								Actual.
6,589	...	...	...	69,218				
37	...	...	...	614				
2,137	...	...	...	13,806				
6,802	...	...	...	27,632				

APPENDIX

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed, or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Province maps.							
Balasore, Bhagalpur, Chaibassa, Champaran, Gaya, Manbhum, Monghyr, Patna, Ranchi, Sambalpur, Santal Parganas, Shahabad.	Compilation of miscellaneous maps of extra departmental work.	.....	40				
Index map of Gandak river. Comparative map of Ganges river.							
Map Reproduction Section.							
Champaran	Reproduction of attestation copies of village maps.	.....	4,875	...	13	4,875	...
Gaya	Ditto	.....	9,474	...	56	9,474	...
Saran	Ditto	.....	3,000	...	1,842	1,842	1,158
Gaya	Reproduction of final copies of village maps.	.....	9,356	...	3,799	7,042	2,314
Champaran	Ditto	.....	2,685	...	1,783	1,803	882
Monghyr	Ditto	.....	7	..	7	7	...
Santal Parganas (Sauria Paharia Hills).	Ditto	.....	744	...	744	744	...
Cuttack	Ditto	.....	1,030	...	117	117	913
Shahabad	Ditto	.....	15	...	15	15	...
Saran	Reproduction of village maps for revision purposes.	.....	6,541	...	1,411	6,397	144
	Reproduction of trijunction mark maps.	.....	49	...	49	49	...
	Reproduction of skeleton thana maps.	.....	7	...	7	7	...
	Reproduction of skeleton district maps.	.....	10	...	1	10	...
	Reproduction of final thana maps.	.....	Not known.	...	35	200	...
	Reproduction of skeleton map of this province.	.....	1	...	1	1	..
	Reproduction of Ganges Diara maps.	.....	138	...	23	81	57
	Reproduction of Survey and Settlement Index maps.	.....	2	...	2	2	...
	Extra departmental work	.. ...	...	...	...	...	...
Gaya	Reproduction of municipal maps.	.....	117	...	117	117	...
Do.	Reproduction of irrigation maps.	.....	8	...	8	8	...
Saran and Champaran	Index Mujmilis and other miscellaneous maps.	.....	63	...	63	63	...
	Map Records	.....	...	...	...	...	...
	Badars	.....	...	...	...	...	...

XI—*concluded.*

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10.	11	12	13	14	15	16	17
Rs.				Rs.				
923	...	...	...	34,962				
32,482	...	...	...	7,47,082				
86	...	...	...	16,993				
144	...	...	...	859				
...	...	...	...	...				
...	...	...	...	...				
...	...	...	...	...				
...	...	...	...	...				
115	...	...	...	2,468				
1,201	...	...	...	30,345				
250	...	...	...	250				
102	...	...	...	102				
195	...	...	...	195				
6,599	...	...	...	75,953				
925	...	...	...	54,478				

APPENDIX XII.

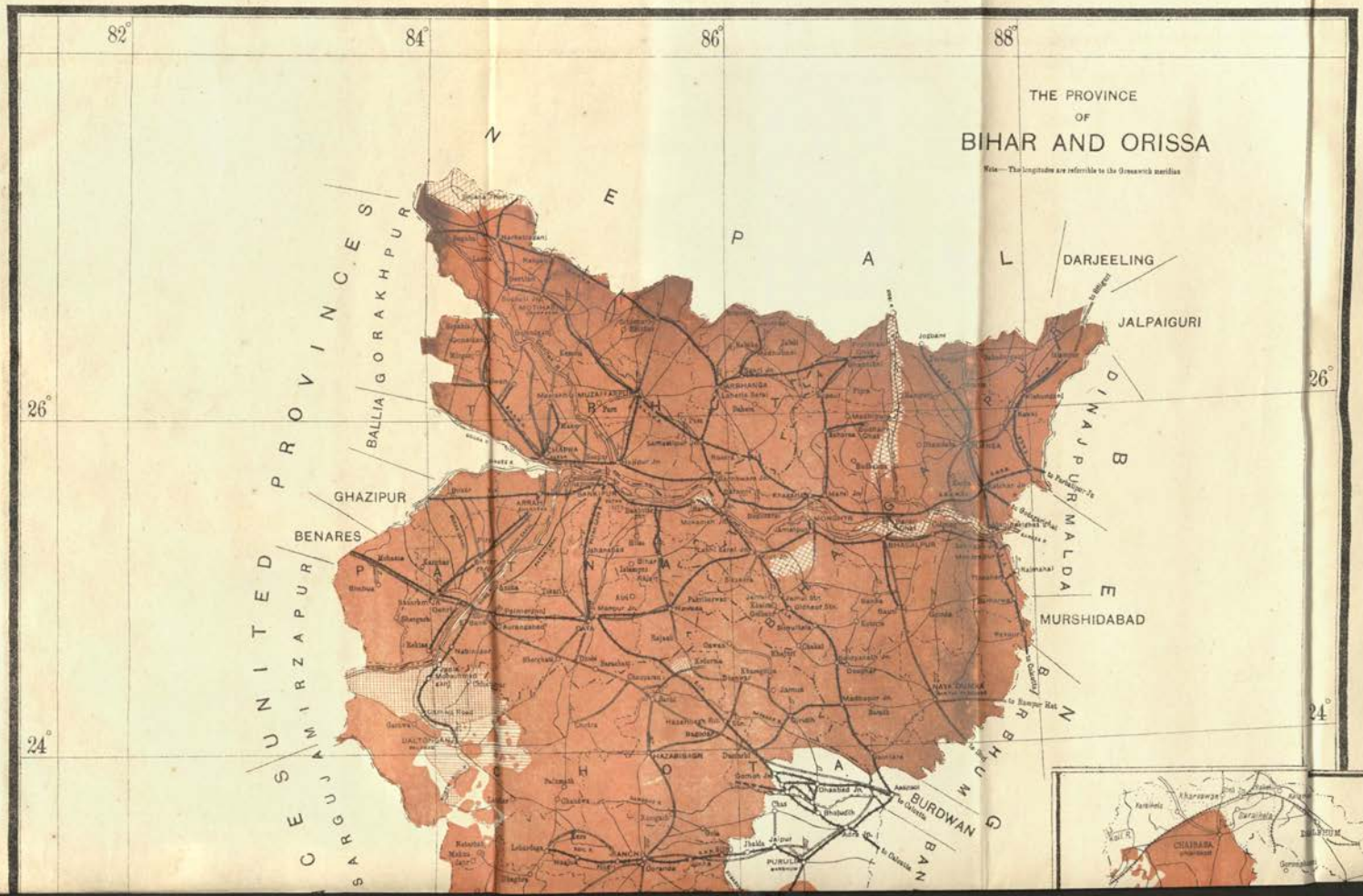
Statement showing the cost per copy of different classes of maps reproduced in the Bihar and Orissa Drawing Office during the Survey year 1915-16.

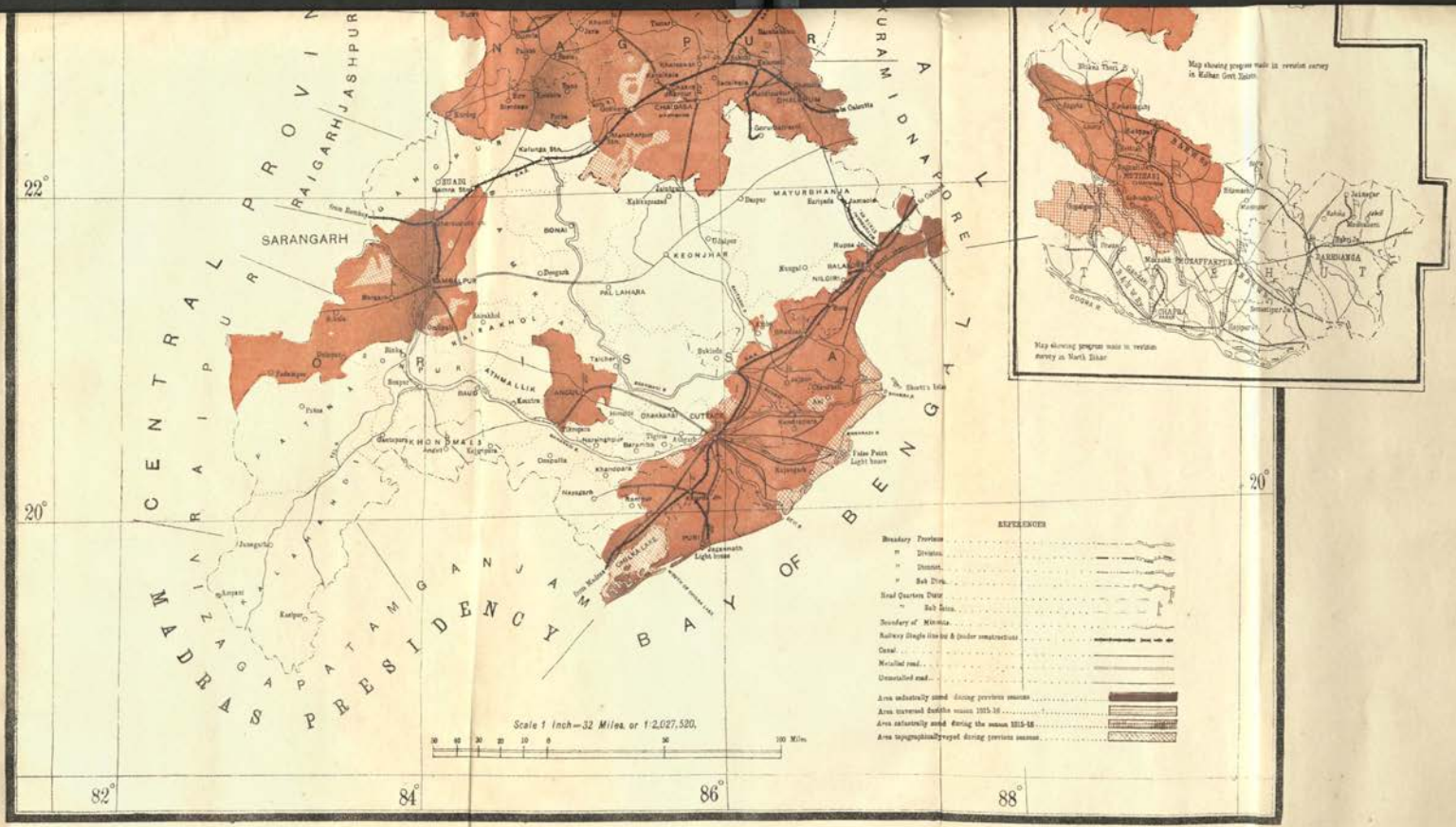
[*See* Chapter IV, Part II of the Report.]

Class of work.	Number of copies printed.	Direct charge with stationery.	Cost per copy.	Direct charge with share of General Section.	Cost per copy.	Direct charge with share of General Section and share of control.	Cost per copy.
1	2	3	4	5	6	7	8
		Rs.	Rs. a. p.	Rs.	Rs. a. p.	Rs.	Rs. a. p.
1. Preliminary reproduction of maps for attestation purposes, including one copy retained for the Standard Mapping Section.	5,641	715	0 2 1	1,096	0 3 1	1,134	0 3 3
2. Final printing of village maps, including two blue prints of each sheet.	508,906	36,755	0 1 2	47,728	0 1 6	49,398	0 1 7
3. Final thana maps	2,450	893	0 5 10	1,182	0 7 9	1,223	0 8 0
4. Skeleton thana maps ...	924	124	0 2 2	170	0 2 11	176	0 3 1
5. Trijunction marks maps ...	1,444	99	0 1 1	128	0 1 5	132	0 1 6
6. Skeleton district maps ...	100	8	0 1 3	10	0 1 7	10	0 1 7
7. Ganges Diara maps ...	842	337	0 6 5	459	0 8 9	475	0 9 0

B. & O. G. P. (D. L. R.) No. 88—288—15-1-1917—T. W. L.

SURVEY MAP


THE PROVINCE
OF
BIHAR AND ORISSA
Note—The longitudes are referrible to the Greenwich meridian
82°
84°
86°
88°
26°
24°
NEPAL
DARJEELING
JALPAIGURI
DINAJPUR
MALDA
MURSHIDABAD
BURDWAN
BANKURA
GHAZIPUR
BENARES
BALLIA
GORAKHPUR
SARGUJA
MIRZAPUR
UNITED PROVINCES
BIHAR
CHOTA NAGPUR
BENGAL
HAZARIBAGH
RANCHI
PURULIA
CHAIBASA



Compiled & Zincographed in the S.A.O.D.S.

No. 17-208-4.

FROM

H. K. BRISCOE, ESQ., I.C.S.,
SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,

To

THE SECRETARY TO THE GOVERNMENT
OF BIHAR AND ORISSA, REVENUE DEPARTMENT.

Dated Bankipore, the 26th January 1917.

SIR,

I AM directed to forward the annual report on the Survey and Settlement operations under the control of the Director of Land Records and Surveys, Bihar and Orissa, for the year ending the 30th September 1916.

2. Original operations on a major scale were in progress in the districts of Gaya, Hazaribagh and Palamau.

Under the programme for the province a beginning should have been made in the district of Manbhum (excluding parganas Barahbhum and Patkum for which a record has already been prepared) with the traverse survey of the first year's area; in view, however, of the general necessity for retrenchment of expenditure this work was postponed till the field season now current.

Revisional operations were in progress in the districts of Champaran and Saran, and in the Kolhan Government Estate in the district of Singhbhum. The programme in Saran, however, was curtailed for financial reasons, while in the Kolhan attestation of the second-half of the estate was suspended owing to agricultural distress.

The modified programme for the year was completed generally, but there were some small arrears in Palamau and Singhbhum.

3. Paragraphs 13 to 27. *The South Bihar Settlement.* Produce rent questions were again the main feature of the operations in the district of Gaya, but no new developements of special importance appear to have occurred.

The difficulties noticed in paragraph 15 of the report regarding tenure-holders who have become liable to ejectment as a result of a Partition, and the suggestion that the Batwara Act might be amended so as to provide for the ejectment of such tenure-holders, relate to an old and thorny problem of Partition law which the Board prefers not to discuss in this review. The suggestion in paragraph 19 for the opening of a new Subdivision at Sherghati seems to concern the general administration rather than the Board, and in any case the Hon'ble Member considers that on the material available he would not be justified in expressing any opinion.

4. The refusal of the Special Judge, referred to in paragraph 24, to accept one-fifth of the gross produce as a standard maximum limit for enhancement

of existing rents is of interest as coinciding independently with a recent pronouncement of Government on a reference regarding the operations in Palamau, in which His Honour in Council agreed with the Board that a proportion of one-fifth of the gross produce cannot be accepted universally, or even generally, as a standard maximum for the fixation of rents.

5. The Board is rather surprised at the allegation of harshness made against the Settlement Department, as stated in paragraph 25 of the Report, in regard to the use of landlords' cess returns as a means of ascertaining the average value of the produce rents received by them, since section 95 of the Cess Act specifically authorizes the employment of these returns as evidence against the makers. The utilization of these returns in commutation cases where reliable documentary evidence is lacking has accordingly been prescribed in rule 526 of the Settlement Manual; unless, of course, on other grounds they are evidently incorrect.

6. Paragraphs 28 to 43 and 62 to 65. *The Chota Nagpur Settlement.* The important questions raised in connection with the settlement operations in the district of Palamau are now before Government in a separate report. There was a marked improvement in the total *partal* of cadastral survey work, though there was a slight fall in the check by superior agency. The proposals for recovery of costs in Palamau, to which the Director refers in paragraph 43, have been accepted provisionally by Government, and computation is now proceeding on their basis.

7. Paragraphs 44 to 61. *The North Bihar Revision Settlement.*—In this Settlement also there was a marked improvement in the *partal* of cadastral survey work, but there was a slight decrease in the check of preliminary record writing. The Board is glad to learn from paragraph 48 of the Report that the exercise of closer control by the superior staff has apparently contributed to a decrease in the number of disputes instituted, and from paragraph 60 that a determined effort has been made to suppress corrupt practices among the subordinate staff.

8. The cost rate in Saran (paragraph 51) of revision survey and preliminary record-writing, Rs. 169 per square mile, exceeds considerably the rate for the previous year in the Sadr Subdivision of Champaran and the *diaras* of the river Gandak, which was under Rs. 108 per square mile. For this the reduction in programme was partly responsible, but the increase in number of plots and the strengthening of the supervising agency are causes that threaten to maintain a higher cost rate throughout this district, than in Champaran. Comparison, however, both with the actual rates for the latter district and also with the rates estimated for Bihar revision work generally can better be made after receipt of the figures for the current year, which will include the charges for attestation of the first year's area. In Champaran, the only other district so far taken up, there were exceptional circumstances which admittedly robbed the operations of much of their value as a criterion of normal cost for Bihar generally.

9. The Board commented in paragraph 6 of last year's review on the rising percentage of objections allowed, which shows a further increase in the year now under review (paragraph 54). The Board, however, does not rely on this percentage, taken by itself, as a test of attestation work. So far as can be judged from the figures of plots under attestation and of *khatians* recorded (Appendix III) given in the reports of the previous year and of the year now under review, the proportion of objections filed shows no marked variation. Paragraph 52 of the former report does not show how many of the objections allowed related to corrections of mere technical errors, and so no strict comparison is possible between the two years; the increase, however, in the total number of objections allowed from 27 to 37 per cent. indicates a rise in the number of successful objections on matters of substance. The Board agrees in the Director's finding that the work of the attesting officers need not be condemned on this account: on the other hand it is not unwelcome that the officers hearing objections have not been content to uphold blindly the attested records.

10. The rent questions treated in paragraphs 55 and 57 of the report are still before the Courts, and the Board would prefer to withhold discussion. Sub-paragraph (iv) of the latter paragraph raises in effect a principle of considerable importance ; namely, whether the prohibition contained in section 35 of the Bengal Tenancy Act, against the decreeing of any enhancement which is in the circumstances of the case unfair or inequitable, can rightly be invoked so as to curtail on general grounds over a large area, and not in individual tenancies only, the enhancement admissible under the preceding sections. An authoritative ruling on the point should be of great assistance in the future rent-case work of the Department.

The readiness of landlords and tenants to accept equitable compromises under section 109C (paragraph 59) is of good omen for a lasting settlement of the agrarian difficulties that of late years have embittered the relations between many landlords in Champaran and their tenants.

11. The percentage of mutations in Wards Estates (paragraph 69 and Appendix V) shows but little improvement, and the figures for resettlement of vacant tenancies in these estates (Appendix VI) are even more disappointing than those returned in the previous year. As promised in paragraph 11 of the Board's review on the report of previous year, the attention of Commissioners was drawn to both these matters in February last, but it is early yet to judge fully of the results of that warning.

12. Part II of the Report, Traverse Surveys and Drawing Office, invites no special comment.

13. The Board desires to bring to the notice of Government the names of the officers commended by the Director in paragraphs 75 and 95 of his Report, and again to express its appreciation of the services of the late Director, Mr. Reid, who made over charge of the Department in April, after having been in charge of it for four years, during which time, as remarked in last year's report, he has worked unsparingly, and has administered this important and difficult department with energy and efficiency. Mr. Murphy, the present Director, who is also an officer of considerable settlement experience, has satisfactorily continued the administration of the Department.

I have the honour to be,

SIR,

Your most obedient servant,

H. K. BRISCOE,

Secretary to the Board of Revenue,

Bihar and Orissa.

B & O. G.P. (Bd. of Rev.) No. 199—288+5+1—30-1-1917—E. J M.

GOVERNMENT OF BIHAR AND ORISSA.

REVENUE DEPARTMENT.

RESOLUTION No. 1148 —— R. 8—12

Ranchi, the 23rd February 1917.

READ—

The Survey and Settlement Report for the year ending the 30th September 1916, and the remarks recorded thereon by the Board of Revenue.

1. Mr. J. Reid, I.C.S., was in charge of the combined Survey and Settlement Departments up to the 14th April 1916 when he was relieved by Mr. P. W. Murphy, I.C.S., who held charge for the remainder of the year.

2. The work of the Survey Department was practically confined to the district of Palamau where an area of 925 sq. miles was traversed, thus completing the traverse survey of the district. The original programme included a further area in the district of Manbhum but owing to the financial stringency, this was deferred for a year. A number of miscellaneous items of work, including the traversing and relaying of several Native State boundaries, were carried out by the department. A large amount of work was turned out at economical rates by the Bihar and Orissa Drawing Office.

3. The work of the Settlement Department extended over six districts and included original operations in the districts of Gaya, Palamau and Hazaribagh and revisional operations in Champaran, Saran and the Kolhan Government Estate in Singhbhum. The total area for which preliminary records were prepared was 1,868 sq. miles, while records were finally published for 4,376 sq. miles. The expenditure amounted to Rs. 8,77,964 against Rs. 10,54,226 in the previous year. The smaller expenditure was due to curtailment of the programme necessitated by the present financial stringency and will necessarily result in some increase in cost rates, but the Lieutenant-Governor in Council notices with satisfaction that there are indications in the report that another result has been a marked increase in the standard of check in Palamau and Saran and, in consequence, greater efficiency.

4. In Gaya, the programme, which comprised attestation of 1,622 sq. miles in four thanas, commutation and recovery of costs in four thanas and disposal of cases under sections 105 and 106 of the Bengal Tenancy Act in three thanas, was successfully carried through. As in previous years, the prevalence of produce-rents was the chief feature of the agrarian situation in this area, and much of the time of the attestation and case officers was taken up with the decision of disputes as to the particular form of the system in vogue and the respective shares of the landlord and tenant in the produce. His Honour in Council has read with interest the remarks of the Director of Land Records as to the effects of partitions on tenant rights and on the position of tenure-holders; and his suggestion that provision should be made in the Estates Partition Act (Act V B. C. of 1897) for the ejectment of tenure-holders who have become liable to ejectment as a result of a partition will receive due consideration when the Act comes under amendment. It is satisfactory to note that cases of the infringement of the provisions of section 58 of the Bengal Tenancy Act, which were reported by the Settlement staff, were promptly and adequately dealt with by the Collector.

5. In Chota Nagpur, cadastral survey and settlement operations were continued in the districts of Hazaribagh, Palamau and Singhbhum. In Hazaribagh, the operations were practically completed except for recovery

of costs from a small area and submission of the Final Report on the settlement operations in the district, which is now in the press. In Palamau, a large programme of cadastral survey, preliminary record-writing and attestation was completed. Memorials were submitted by landlords of the district protesting against the proceedings of the Settlement Department and raising important issues on the subject of the administration of the Chota Nagpur Tenancy Act. As the result of a careful enquiry by the present Director of Land Records, the Lieutenant-Governor in Council has recently decided that the grievances of the memorialists are largely due to misapprehension of the objects of the Survey and Settlement operations and ignorance of the provisions of the tenancy law. A further opportunity will, however, be given to landlords in the area already attested to obtain a settlement of fair rents, where the strict excision of illegal enhancements has reduced their rent-roll below what they may fairly demand, and in the areas still to be attested a general fair-rent settlement has been ordered. The resettlement operations in the Kolhan Government Estate in the district of Singhbhum were retarded owing to the prevalence of scarcity, and the attestation of the second half of the estate was postponed. The rest of the programme, covering the first half of the estate, was completed with the exception of final publication of records of a small part of the area.

6. In North Bihar, the revision operations are approaching completion in Champaran and recovery of costs is now in progress. As in the area previously dealt with, a marked feature of the work was the keen interest displayed by parties. Objections to entries made at attestation were less numerous, but the percentage of successful objections shows a further increase to 37 per cent. The main problem which faced the Settlement Officer was the question of the legality of the enhancements made by indigo planters in consideration of the abrogation of the obligation of the raiyats to grow indigo on three-twentieths of their holding. His Honour in Council has read with interest the account which the Settlement Officer has given of the lines on which the problem has been dealt with by the Department, but he defers comment pending the final decision of the question in the Civil Courts.

7. The programme of revision operations in Saran was considerably curtailed on financial grounds and the only work undertaken was the revision of maps and preliminary record-writing in two thanas. Improvement in the *partal* of cadastral survey work and the exercise of closer control by the superior staff are satisfactory features of the operations in this district. The large increase in the cost rate of this stage of the work is ascribed partly to the curtailment of the programme, resulting in a heavier incidence of supervision and office charges, but mainly to the large increase in the number of plots which was 1,976 per sq. mile as compared with 1,277 in the previous year. It is important to keep cost rates as low as possible, but care must be taken not to seek economy at the cost of efficiency.

8. The scheme for the preparation of new maps and records by indigenous agency in the district of Sambalpur continued to work satisfactorily, and maps of 453 villages and records of 446 villages were prepared by the Patwaris during the year.

9. The maintenance of boundary marks received due attention from the District Officers and the work of restoration and inspection was adequately performed. The consideration of the question of reducing the rate of recovery of the cost of boundary marks has been deferred till sufficient data are available on which to base an estimate of the probable cost of maintenance.

10. The thanks of the Lieutenant-Governor in Council are due to Mr. Reid for his efficient and vigorous administration of the department, of which he has been in charge for four years, and to Mr. Murphy, the present

Director, for his interesting report. His Honour in Council desires also to acknowledge the good services rendered by Messrs. Tanner, Bridge and Sweeney, who were in charge of the major operations, and by the other officers whose work has been commended in the report.

ORDER.—Ordered that the foregoing Resolution be published in the *Bihar and Orissa Gazette* and that a copy of it, with copies of the report and of the Board's remarks thereon, be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

H. COUPLAND,
Secretary to Government.

MEMO. No. 1149-50 R. S—12

Dated the 23rd February 1917.

COPY, with a copy of the Report, forwarded to the Surveyor-General of India / Appointment Department for information (with special reference to para. 10 of the Resolution).

) to Appointment Department.

By order of the Lieutenant-Governor in Council,

A. P. MIDDLETON,
Under-Secretary to Government.

MEMO. No. 1151 R. S—12

Dated the 23rd February 1917.

COPY forwarded to the Secretary to the Board of Revenue, Bihar and Orissa, for the information of the Board.

By order of the Lieutenant-Governor in Council,

A. P. MIDDLETON,
Under-Secretary to Government.

B. & O. G. P. (Rev.) No. 97—310—26-2-1917—G. N. K.

ANNUAL REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

UNDER THE CONTROL OF

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS,

BIHAR AND ORISSA,

FOR THE

YEAR ENDING 30TH SEPTEMBER, 1917.

PATNA
PRINTED AT THE BIHAR AND ORISSA GOVERNMENT PRESS
1918

[*Price—Indian, Re.* 1 *As.* 12; *English*, 2*s.* 6*d.*]

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REPORT

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

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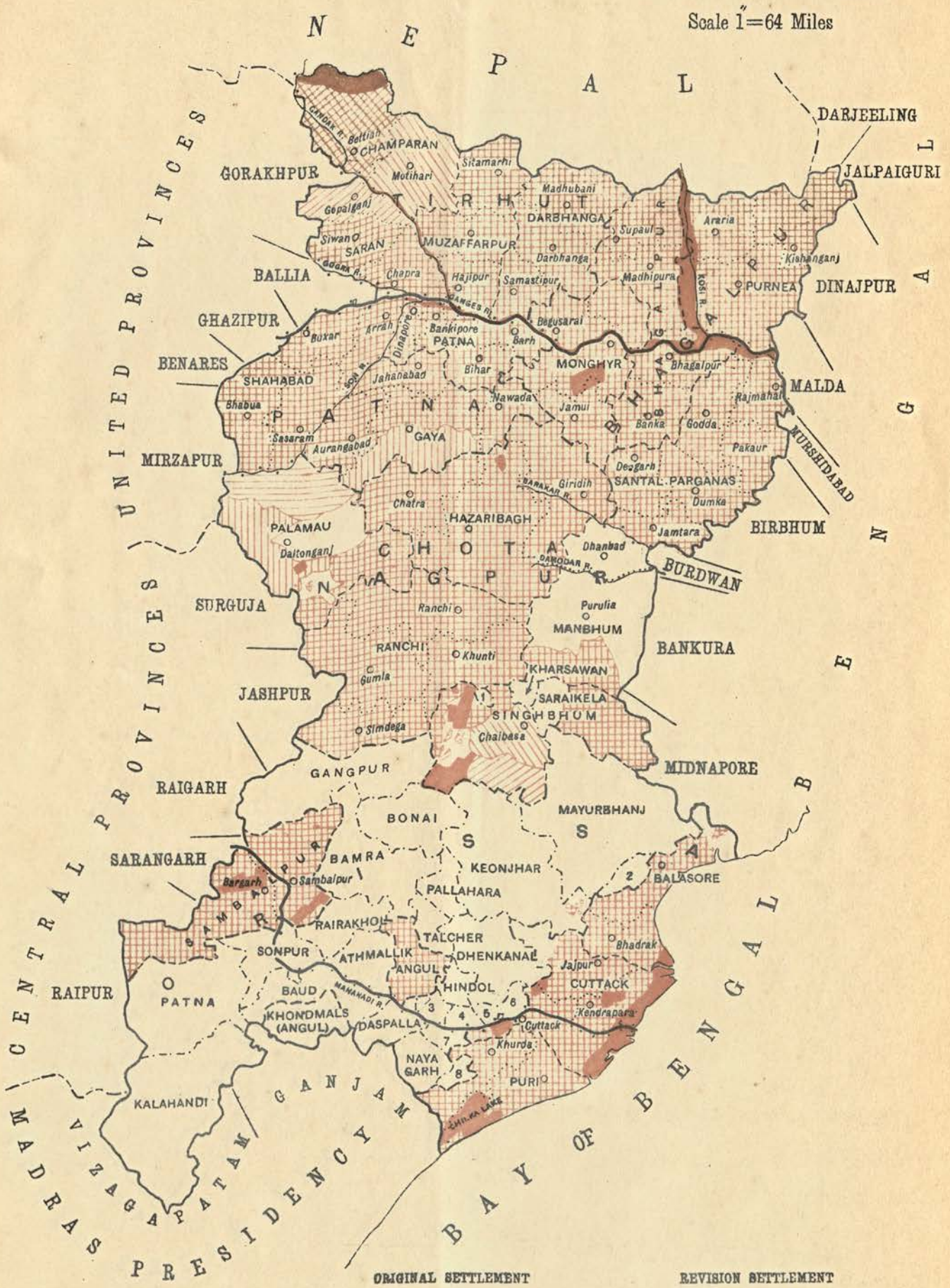
MAP—Showing Progress in Settlement Work.

,, ,, ,, in Survey Work, Traverse and Cadastral.

SETTLEMENT MAP OF THE PROVINCE OF BIHAR & ORISSA

Scale 1″=64 Miles



REFERENCE TO NUMBERS

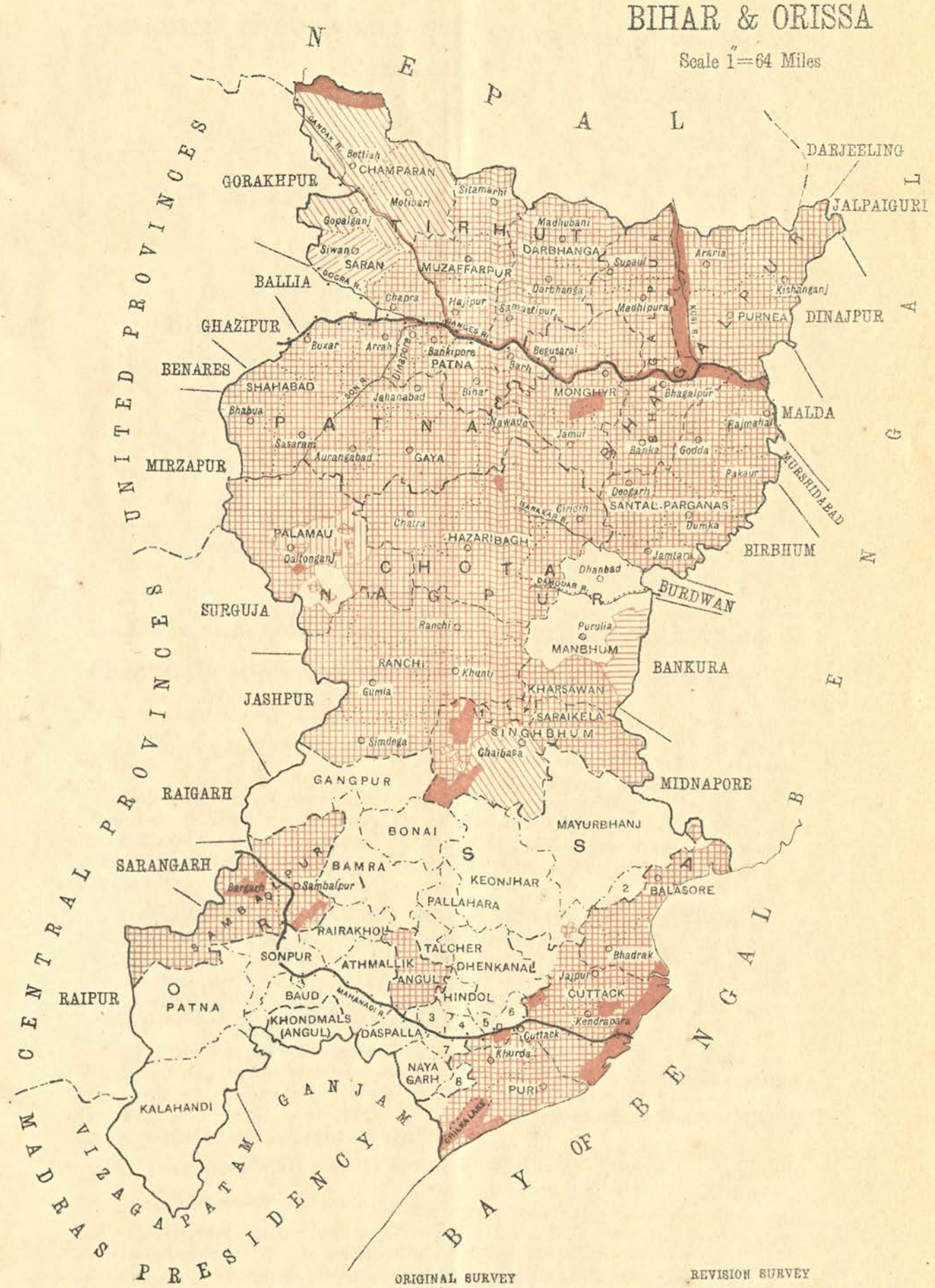
1 KARAIKELA	5 TIGIRIA
2 NILGIRI	6 ATHGARH
3 NARSINGHPUR	7 KHANDPARA
4 BARAMBA	8 RANPUR

	ORIGINAL SETTLEMENT	REVISION SETTLEMENT
Area in progress during 1917		
Area finally published during 1917		
Area finally published previously		
Area topographically Surveyed		

Zincographed in the B & O.D.O.

SURVEY MAP OF THE PROVINCE OF BIHAR & ORISSA

Scale 1″=64 Miles



ORIGINAL SURVEY

Area topographically Surveyed

Area Traverse Surveyed during 1917

Area Cadastrally Surveyed during 1917

Area Cadastrally Surveyed previously

REVISION SURVEY

Area Cadastrally Surveyed during 1917

Area Cadastrally Surveyed previously

REFERENCE TO NUMBERS

1 KARAIKELA	5 TIGIRIA
2 NILGIRI	6 ATHGARH
3 NARSINGHPUR	7 KHANDPARA
4 BARAMBA	8 RANPUR

Zincographed in the B & O D O

DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

No. 5220.

FROM

P. W. MURPHY, Esq., I.C.S.,
DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA,

To

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA.

Dated Ranchi, the 15th December, 1917.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted under the supervision of this Department during the year ending the 30th September, 1917.

PART I.—CADASTRAL SURVEY AND SETTLEMENT.

CHAPTER I.—GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operation; original and revisional.

2. Survey and Settlement operations were in progress during the year in six districts of the Province. In original operations the area cadastrally surveyed comprised 924 square miles and in revisional operations 816 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 1,738 square miles, attested in 2,642 square miles and finally published in 7,495 square miles. The rents of 84,972 tenants were settled. The expenditure of the year amounted to Rs. 7,85,302.

3. The close of the Gaya Settlement marks the completion of the preparation of maps and records for all the districts of Bihar, including the Santal Parganas, an area of 42,313 square miles. Revision operations were begun in Champaran in 1913 and are now in progress in Saran. The remaining districts will be dealt with in turn. The area for which revised records have been finally published up-to-date is 3,254 square miles.

In Chota Nagpur settlement operations are now going on in Palamau. When that district has been completed, portion of Manbhum only will remain to be dealt with before the revision of the records first prepared becomes due. The area in Palamau and Manbhum for which records have not yet been finally published is 5,220 square miles.

Future programme.

4. The traverse survey of the district of Manbhum (excluding Parganas Barahabhum and Patkum) was begun during the year under report. Detailed survey and record-writing will begin in November, 1918, and will be spread over four seasons. The inception of the revision operations in the Santal Parganas which was to have been taken up during the year, has been postponed till 1921-22 by the Local Government Order No. $\frac{5318}{S.\ P.-I}$, dated the 6th September, 1917.

The revision of the settlement records of the Banki Government estate in the district of Cuttack, and of the Koderma Government estate in the district of Hazaribagh were sanctioned in the Local Government Order No. 10742-R., dated the 5th December, 1916, and in the Board's order No. 17-88-1, dated the 7th September, 1917, respectively. The survey and preliminary record-writing of the former estate has begun in November, 1917, and that of the latter will begin in November, 1918.

Settlement Staff.

5. The largest number of Settlement Officers employed throughout the year was three. All of them were Civilian officers in charge of the major Settlements in South Bihar, North Bihar and Chota Nagpur. The largest number of Assistant Settlement Officers employed during the year was 80 against 86 in the previous year, of whom 43 were employed in North Bihar, 8 in South Bihar and 29 in Chota Nagpur. This number comprised 4 Civilians, 20 Deputy Collectors, 45 Sub-Deputy Collectors, 5 Munsifs and 6 non-gazetted officers. Of the six non-gazetted Assistant Settlement Officers three were subsequently promoted to the rank of Sub-Deputy Collectors.

Training of Junior Civilians.

6. Two Junior Civilians were deputed to undergo training in Survey and Settlement. Mr. P. T. Mansfield underwent training in North Bihar and Mr. B. K. Gokhale was trained in Chota Nagpur. They are reported to have acquired a practical knowledge of the vernacular and of rural conditions in the five and half months for which they were deputed, and their services were of much assistance to the Department. Both of them were placed temporarily in charge of cadastral circles, and they are reported to have controlled their staff and organized the work efficiently.

Training of Munsifs.

7. One of the two Munsifs deputed in October, 1915, completed the prescribed term of eighteen months' training. The other was discharged in September, 1916.

Training of District Kanungos.

8. Only one District Kanungo was trained in Survey and Settlement work during the year.

Final Reports.

9. The final report of the Survey and Settlement operations in the district of Hazaribagh has been formally submitted to the Board of Revenue, Bihar and Orissa, and those of the district of Shahabad and Parganas Barahabhum and Patkum in the district of Manbhum, are passing through the press.

Maintenance of thana lists and maps.

10. Twenty-three proposals for alteration in thana and police station jurisdictions were received for examination during the year. Twenty-two jurisdiction notifications were issued, in respect of all of which due action for the correction of maps and lists was taken.

Departmental Rules.

11. Revised cadastral survey rules for the guidance of the Assistant Settlement Officers, Inspectors and Amins of the Chota Nagpur Settlement were compiled during the year and received the Board's approval in letter No. 17-207-2, dated the 9th December, 1916.

Utilization of Land Records.

12. Extracts from the annual reports received from the District Officers continue to confirm the opinion expressed in previous years regarding the utility of Survey and Settlement records in almost all branches of administration. In criminal cases concerning land, in civil suits for arrears of rent and possession, in partition and land acquisition proceedings, in certificate cases, in preparing sketches of the scenes of crime, in making *chaukidari* assessments and in almost every branch of revenue work, the records, it is reported, have been constantly consulted and utilized.

CHAPTER II.—PERMANENTLY-SETTLED ESTATES.

South Bihar Settlement.

(*See* Appendices I to IV.)

13. *Programme.*—The programme consisted of the disposal of sections 105 and 106 cases, settlement of rent in Government and Temporarily-Settled Estates under Revenue Settlement, recess work and final publication of those estates as well as those left pending in the previous year, recovery of Survey and Settlement cost in thanas Jahanabad, Tikari, Atri, Nawada, Rajauli, Pakribarwan, Barachatti, Sherghati, Mofassil and Town Gaya and certificate work of those thanas.

14. *Staff.*—Mr. E. L. Tanner, I.C.S., was Settlement Officer up to 18th June, 1917, and Babu Sudhansu Bhusan Mitra was in charge from 18th June to 30th September during the period Mr. Tanner was on special duty in connection with the Champaran Agrarian Committee.

The officers engaged in the disposal of the work set down in paragraph 13 of this report were four Deputy Collectors and six Sub-Deputy Collectors. Of the four Deputy Collectors two were engaged in the settlement of rents in Government and Temporarily-Settled Estates and one was in charge of the Headquarters Office. One Deputy Collector and one Sub-Deputy Collector reverted to general duty in the early part of October, 1916, and the remaining five Sub-Deputy Collectors did not revert till August. Two of these five officers were employed in the disposal of sections 105 and 106 cases, two were engaged in recess work at Sadr and one had charge of the Recovery Camp.

15. *Recess work.*—Recess work was done only in the villages left pending in the previous year and in the Government and Temporarily-Settled Estates which were under Revenue Settlement. All the villages were finally published except Gauharpur, No. 314, thana Tikari. There is a small Revenue Survey village, Math Chak Arazi, adjoining Gauharpur, which was surveyed as part of it by mistake during the survey of 1893-97 and recorded as a Government estate. The mistake was discovered at this Settlement and the proprietress Mosammat Parbati Kuar, duly recorded in the Khewat of this village as proprietor of the 10·69 acres which Math Chak Arazi covered in accordance with Register D. The tenants cultivating part of this village and who had been settled thereon by the Khas Mahal were recorded as under Mosammat Parbati Kuar and their rent noted as *Kabil Lagan*. In the section 104 proceedings the case was referred to the Board who directed the Collector to give up possession provided the proprietor agreed to forgo mesne profits and not to disturb the possession, of the existing tenants. The disposal of this village is pending receipt of information from the Collector that this has been done.

16. *Applications under Section* 104.—Two officers were entrusted with this work : one had charge of 29 Government and Temporarily-settled villages of the Dakhner Mahal in thana Mofassil Gaya and 17 villages of thana Rajauli, and the other dealt with 20 villages of thana Sherghati, 13 of thana Barachatti and 7 of Mofassil Gaya. Out of these 40 villages, 33 appertained to Sarwan Mahal. Both the camps finished their rent proposals at about the same time in March, 1917, and settlement of fair rents in all the villages was completed by May. Draft publication of the rent-rolls was also finished by May and all objections under section 104-E were disposed of by June, 1917. The rent-rolls of all the villages were confirmed except Gauharpur referred to in the preceding paragraph. The appeals have also been disposed of.

Practically all the *danabandi* rents in the Sarwan Mahal were commuted. The raiyats wanted it done and the Collector agreed, so it was done in the course of the rent settlement although not formally under section 40. We find in practically every case that actual realizations were about one-fifth of the gross produce or less.

17. *Cases under Section* 105.—The case work this year continued till August, 1917. Two quotations from judgments of the District Judge, Gaya, showing his views of the one-fifth of gross produce principle in settling fair rents and

allowing enhancements under section 30 (*b*), Bengal Tenancy Act, are reproduced. "As to the Assistant Settlement Officer's principle that the rents should not be allowed to go beyond one-fifth of the value of the gross produce, he does not, as the learned pleader seems to imply, lay this down as an inflexible rule, but quite rightly he lets us know what is passing in his mind when estimating what rent is fair and equitable. This principle seems to me, in view of the increased cost of labour, materials, food, transportage, and so forth, to be unobjectionable; and the Assistant Settlement Officer's opinion must be given due weight in view of the fact that he has made a careful enquiry on the spot, and in doing so he has the aid of his expert knowledge. The memorandum of appeal urges that the landlord's cash rents should extend to at least one-half of the total produce. In his arguments the learned pleader seems to rely by an analogy on section 34 of the Bengal Tenancy Act, but a reference to that section will show that it has been entirely misunderstood. Unless a moiety was the measure at the original settlement why should it now be taken as the measure? After all the landlord's *Jama Sadar* is a constant quantity, so his need for enhanced rents is not so urgent as the need of the tenantry for a reasonable rental". In another case the Special Judge wrote. "It is urged that at the previous Survey the averge rent was Rs. 6-6-3 per *bigha*, and owing to the misconduct of a *thiccadar* the average rent has now been reduced to Rs. 4-13-6. On the other hand, it appears that the old rental was more than was fair and equitable. It was some 14 annas 3 pies per *bigha* higher than one-fifth of the gross produce of the two best classes of lands in the village, so it may well be said that the *thiccadar* was forced by circumstances to reduce the rent to a level at which realizations became practicable. Anyone acquainted with the opinions of experts who have gone into the question in the last 20 or 30 years will concede that a rent which exceeds one-fifth of gross produce should be looked upon with suspicion. The average gross produce per *bigha* of the whole village including the sterile tracts, Kita Taur and Gosain Bagh, has not been calculated, but it is undoubtedly considerably less than that indicated by the figure Rs. 27-8-0 per *bigha*, which only applied to the two best classes of land".

This is undoubtedly a vindication of the attitude adopted throughout by the Settlement Officer.

18. *Cases under Section* 106.—438 suits under section 106 were instituted during the year making a total of 1,724. Of these 669 were disposed of during the year and 48 are pending. Of the pending cases 43 were filed by the Maksudpur Wards' Estate. All these cases have been finished from hearing except a batch of 14 the hearing of which is in progress.

19. *Commutation of rents (Section* 40 *cases)*.—No applications under section 40 were taken up, they having been made over to the Collector under order of the Board. But during section 104 proceedings in Government and Temporarily-settled Estates the produce rents of 445 holdings covering an area of 1,980·87 acres were commuted to *nakdi* with the consent of both parties. The commuted rents amounted to Rs. 7,235-6 giving an incidence of Rs. 3-10-5 per acre.

The case of Kanap village which was finally decided in appeal is interesting. The village belongs to the 9-annas Tikari Estate which, when the case was first taken up, refused to produce any papers and asked for crop-cutting experiments to be done. The Assistant Settlement Officer, who found that the papers had been filed in a case under section 105 of the same village, got hold of them, and finding them genuine used them to get the actual realizations and refused to do crop-cutting experiments. The Settlement Officer upheld this view but raised the rents slightly because the cash rents settled as being those of similar lands were in his opinion too low. On second appeal the acting Commissioner sent the case back for crop-cutting experiments, holding that the landlord's papers for a series of years did not constitute a sufficient basis upon which to determine the landlord's average annual share of the profits and that it was necessary to determine what his share might be in future.

Crop-cutting experiments were made, and proved, as every one having a practical acquaintance with the *bhaoli* system knows, that the landlord had been realizing little more than half the amount which according to the crop-cutting experiments he was entitled to. The Commissioner on the basis of this raised the rents by over 50 per cent. of what had been originally fixed.

20. *Recovery.*—The recovery of cost began in December, 1916. The recovery camp closed in July, 1917, and the balance was dealt with from headquarters. Of the total demand of Rs. 8,26,818 all but Rs. 25,853 was recovered during the year and all but Rs. 32,833 was recovered without the use of the Certificate procedure.

21. *Cost.*—The direct cost incurred during the Survey year 1916-17 was Rs. 1,33,059. The indirect cost has been Rs. 25,935 including Rs. 4,799 as cost of Director of Land Records and Surveys' control. Receipts amounted to Rs. 21,916 in cash and Rs. 40,213 in stamps. The net cost was, therefore, Rs. 96,865.

22. *Monghyr Municipal Survey.*—Mr. Tanner was put in charge of this work which started in February, 1917. The field work was finished in the first week of September. After a good deal of difficulty recess work was practically finished by the end of the year except the work on the maps which will be finished in November. It is hoped that the records and copies of maps will be deposited with the Municipality by December. The experience of Gaya Municipal Survey was very valuable and we expect to give the Monghyr Municipality a more convenient record as a result.

CHOTA NAGPUR SETTLEMENT.

23. *Staff and extent of operations.*—Survey and Settlement operations were in progress in the districts of Hazaribagh, Singhbhum and Palamau. Mr. T. W. Bridge, I.C.S., was Settlement Officer throughout the year except for a period of one month and nine days during which Mr. A. D. Tuckey, I.C.S., officiated. Throughout the year Mr. Tuckey was in charge of the Kolhan Settlement operations both in field and recess, and of the cadastral recess work of the Palamau Settlement. Mr. J. R. Dain, I.C.S., was in charge of the Survey and Khanapuri operations during the field season in Palamau, after which he reverted to the general line. The number of Assistant Settlement Officers employed during the field season and recess was 33 and 20 respectively. The staff during the field season included 3 Civilians, 9 Deputy Collectors, 3 Munsifs, 16 Sub-Deputy Collectors and 2 non-gazetted officers who were promoted to the rank of Sub-Deputy Collectors.

HAZARIBAGH DISTRICT.

Area, 6,908 square miles; 7,007 villages; 337,097 holdings; 54,07,472 plots.

24. *Programme.*—The programme of the year consisted of—

(*i*) Disposal of post-publication suits and settlement of fair rents under section 85 of the Chota Nagpur Tenancy Act.

(*ii*) Final publication of 26 square miles.

(*iii*) Recovery of costs by certificate procedure.

25. *Fair rent settlement.*—Fair rent settlement has been completed except in 22 villages of the Hata Mahal Government estate, in which it is in progress and in the Government estate village Kendua in thana Chowparan where sanction to the proposed rates is awaited.

1,663 applications under section 85 of the Chota Nagpur Tenancy Act for settlement of fair rents have been disposed of during the year. One case is pending for disposal.

26. *Commutation of produce rents.*—104 applications for commutation of produce rents were disposed of.

27. *Final publication.*—Final publication of 22 villages of the Hata Mahal was done during the year under report.

28. *Recovery of cost.*—The balance outstanding at the end of the previous year was Rs. 31,979, of which Rs. 31,394 was collected during the year leaving an outstanding balance of Rs. 585 only. A portion of this balance is irrecoverable and will have to be written off.

29. *Cost.*—The total cost of all the operations (including traverse work) up to 30th September, 1917, is Rs. 17,11,356. It is estimated that Rs. 2,000 will be needed to bring the operations to a close. The total estimated cost is, therefore, Rs. 17,13,356. Deducting one-fourth share payable from Imperial Revenues, the sum to be recovered is Rs. 12,85,017. The total realizations in the whole district are estimated at Rs. 13,07,389. Of the excess recovery of Rs. 22,372, a sum of Rs. 13,812 has been assigned for the upkeep of boundary marks.

PALAMAU DISTRICT.

Cadastral Survey and Record-Writing.

30. *Programme.*—The year's programme consisted of the Cadastral survey and preliminary record-writing (both field and recess) of the remainder of the district, an area of 924 square miles. The whole programme was completed.

31. *Cadastral Survey.*—The survey was finished in about six months, and was checked by 2·25 linear miles of *partal* per square mile, out of which the check by superior agency amounted to 0·28 linear miles. Ten per cent. of the quadrilateral lines, on which the detailed survey is based, were also checked on the ground. The amount of check was sufficient.

32. *Preliminary record-writing* (*Khanapuri*) *and internal disputes.*—The preliminary record-writing including the decision of internal disputes was completed by the middle of July. There were 21,404 internal disputes or about 23 per square mile, as against 17 per square mile in the previous year. The disputes related chiefly to possession and to quarrels between co-sharer landlords as to which *patti* a piece of land or a raiyat belonged to. The average size of a plot was ·95 acre as against 1·31 acres for the previous year.

33. *Boundary disputes.*—455 boundary disputes were instituted, all of which were disposed of. The number of appeals against the decisions of the Assistant Superintendents of Survey, including seven appeals pending from last year was 61, of which 58 were disposed of. In 41 cases the decisions were upheld, in nine modified, in seven revised. Four cases were remanded for further enquiry at attestation.

34. *Cost rate.*—The cost rate of the Cadastral survey and *Khanapuri* worked out at Rs. 109 per square mile, against Rs. 100·65 per square mile for the previous year. The increase is due to the smallness of the area dealt with, the increase in the proportion of cultivated area and the number of disputes, and the decrease in the average size of the plots.

SETTLEMENT.

35. *Programme.*—The programme consisted of (*i*) the attestation and draft publication of 1,147 square miles surveyed last season; (*ii*) disposal of objections under sections 83 (1) and 111 (6) of the Chota Nagpur Tenancy Act in the area under attestation; (*iii*) Settlement recess work of the same area; (*iv*) final publication of the records of 1,419 square miles attested in 1915-16; (*v*) Recovery of costs of the settlement operations of 1,172 square miles, the records of which were attested in 1914-15; (*vi*) computation of cost of the settlement operations of 1,419 square miles, the second season's area. The attestation programme was only finished in August, with the result that a number of objections under sections 83 (1) and 111 (6) still remain to be disposed of. These will be finished shortly but the recess work

of the records will not be completed before February next. The delay in the completion of attestation was caused by the unusually large number of disputes. The work was exceptionally difficult; false claims were numerous; few landlords kept any collection papers, and the papers that were produced were seldom found reliable. Rent receipts were not given in most cases and the ascertaining of the legally payable rent was slow and laborious. Produce rents were common and there was a large number of small villages with numerous co-sharer landlords. The raiyats were greatly terrorized and great care and patience was necessary to find out the truth. In order to meet the objections which have been raised to the entries in the record relating to the customs on such subjects as rights in trees, rights of reclamation, rights to forest produce, acquisition of occupancy right otherwise than by statute, it has been necessary to take down the statements made by the raiyats and landlords and to record a finding in each case. The preparation of these records has greatly increased the work of the attestation officers and diminished their rate of progress, but their existence should facilitate the disposal of subsequent objections to the findings.

36. *Status.*—The number of raiyats having *khuntkatti* right was 49 or ·09 per cent. of the total number; occupancy raiyats numbered 50,320, of whom 42,204 were settled raiyats. Non-occupancy raiyats were 1,253 or 2·3 per cent. of the total.

37. *Rent.*—About 25 per cent. of the holdings in the third year's area are held either entirely on produce rent or partly on cash rent and partly on produce rent. Produce rent is mainly on the *batai* system. *Danabandi* was often claimed but was rarely found to be the established custom. A very usual custom is for the rice lands to be held on produce rent and the uplands on cash rent.

The cash rents are mainly lump rentals. Regular rates of rent are rare, and the *paria* system does not prevail widely. Until recess work is finished it is impossible to give figures for the average rates of rent per acre.

38. *Objections under sections* 83 (1) *and* 111 (6) *of the Chola Nagpur Tenancy Act.*—There were 9,552 and 118 objections under the two sections respectively. Adding the cases pending from last year, the total number of objections to be disposed of were 10,323 and 169, out of which 8,230 cases under section 83 (1) and 159 cases under scetion 111 (6) were disposed of during the year.

39. *Landlords' privileged lands.*—The total area recorded as landlords' privileged lands in the area attested amounted to 235·33 acres of rice land and 280·33 acres of upland or ·21 per cent. of the total cultivated area.

40. *Agrarian conditions.*—Agrarian conditions in the area attested, like those in the greater part of Palamau, can only be described as deplorable. Rents are almost incredibly high and the tenants are powerless either to oppose the exactions of the landlords or to bring them to the notice of the authorities. The general settlement of fair rents recently ordered by Government will at least provide an opportunity of framing a record securing to the tenant his rights in his holding on payment of a reasonable rent, but unless attempts by the landlords to ignore this record are strictly suppressed by the district authorities the sums spent on its preparation will have been wasted.

41. *Computation and Recovery of cost.*— The cost recoverable from the landlords and tenants of the first year's area of 1,172 square miles at the rates sanctioned by Government comes to Rs 1,77,130. Of this amount a sum of Rs. 1,50,471 has been collected leaving a balance of Rs. 26,659, of which Rs. 21,984 is due from a single proprietor. The tenants' share of the cost has been collected in full. Certificates have been issued against the defaulters who are paying in instalments.

Computation of the cost recoverable from the landlords and tenants of the second year's area was begun in August, 1917, and is nearly finished. Recovery will be taken up in the cold weather.

The total net cost (including that of traverse work) incurred in the district up to 30th September, 1917, is Rs. 8,63,331. To complete the operations will, it is estimated, cost an additional Rs. 2,59,000. The total estimated net cost comes, therefore, to Rs. 11,22,331, of which about Rs. 7,60,000 will be recoverable from the landlords and tenants.

CHAPTER III.—REVISION SETTLEMENT AND MAINTENANCE OF LAND RECORDS.

North Bihar Revision Settlement.

42. *Staff and extent of operations.*—Mr. J. A. Sweeney, I.C.S., was Settlement Officer up to 18th September when he went on short leave and Mr. A. R. Toplis, I.C.S., officiated till the end of the year. Mr. J. A. Saunders, I.C.S., was in charge of 11 attestation camps in addition to one khanapuri camp during the field season. He went on leave for six months from 19th April, 1917. Mr. A. R. Toplis, I.C.S., was in charge of map revision and preliminary record-writing in addition to three attestation camps in the district of Saran. The number of Assistant Settlement Officers employed in the field and in recess respectively were 42 and 20. Of these 7 were employed in case work during the whole year and from April onwards the number gradually increased to 12. Of the Assistant Settlement Officers employed during the field season 3 were Civilians (including the Junior Civilian Officer on training), 8 Deputy Collectors, 25 Sub-Deputy Collectors, 4 Munsifs and 4 non-gazetted Assistant Settlement Officers, one of whom was appointed Sub-Deputy Collector. The Operations comprised preliminary record-writing and attestation in the district of Saran and final publication, case work and recovery in the district of Champaran.

Cadastral—District Saran.

Map Revision and Preliminary Record-Writing.

43. *Programme.*—Three thanas, Sewan, Basantpur and Darauli which make up Sewan Sub-division, containing an area of 839·38 sqr. miles were the extent of the programme. Out of this an area covering 37·77 sqr. miles of *Diara* was excluded after a part of it had been surveyed, leaving 816·60 sqr. miles which were cadastrally surveyed. The area was divided into eight circles and contained 2,036,115 plots. The work continued till the end of March.

44. *Staff.*—Three of the Assistant Settlement Officers had previous experience of the work and the rest were new. Several of the Kanungos were experienced. They all worked well. The subordinate staff was strong.

45. *Check.*—The total check of survey was 6·91 linear miles per square mile, of which 1·65 miles were of ordinary *partal* as in original surveys, 3·99 were *katan partal* (i.e., *partal* in which only intersection of the *partal* lines with the field boundaries are tested) and the rest independent and final *partal*. The *partal* of Assistant Settlement Officers was 0·36 of a mile per square mile and that of Kanungos 0·80 of a mile. The rest was done by the Inspectors. In addition to this the measurements of 3·64 per cent. of the plots were separately tested by what is known as *tukra partal*. The record-writing of 14·09 per cent. of the plots was checked, 0·50 per cent. by Assistant Settlement Officers, 1·21 by Kanungos and 12·38 by Inspectors. The check of survey is 0·50 linear mile per square mile more than that of last year and that of record-writing 0·07 per cent. less. The Assistant Settlement Officers did 0·14 linear mile per square mile more personal *partal* than was done by them last year and 0·21 per cent. more check of the record-writing. Both were supplemented by an increased amount of check by Kanungos. Check by Assistant Settlement Officers who have to bear the whole burden of deciding disputes is unavoidably small. I consider that the check of survey and record-writing was more than adequate.

46. *Internal disputes.*—22,228 disputes were instituted and decided during the year against a total of 19,731 disputes in the previous year. This works out at 1·09 per cent. of the plots, as compared with 1·3 per cent. of the previous year and 1·8 per cent. of the plots in the year 1915-16.

The number of disputes is a very regrettable feature of Settlement operations. The vast majority of disputes are due to the opportunity given to the raiyat by our operations to score off an old enemy, to get possession of his neighbour's land, and often, too, to have a little cheap amusement and excitement. Any attempt on the part of Inspectors or Amins to encourage disputes is severely punished. This probably accounts for the reduction in the percentage.

47. *Boundary mark.*—There are 3,119 trijunction points in the area actually surveyed during the year. The old marks were found intact at 1,586 places, i.e., 51 per cent. Stones were embedded at trijunctions where the marks had not been found.

48. *Increase of fields.*—The increase in fields is 3 per cent. less than in last year's area. Fields were already so small that much further increase was not to be expected.

49. *Costs.*—The total expenditure (direct and auxiliary) for the season's area is Rs. 2,11,622. Of this sum Rs. 5,895 represents a portion of the cost of the new record-room constructed for the Cadastral Office at Sewan. As was pointed out in the previous year's report the record-room will be made over to the District authorities when the Settlement operations will have been finished in this district. A further sum of Rs. 3,021 and odd should also be excluded from the total expenditure which represents cost incurred on account of preparation of *Hal* and *Sabik* Indices. Again a sum of Rs. 6,937 has been included in this year's expenditure which represents cost of forms supplied and actually expended during the previous years. The area actually completed from preliminary record-writing is 816·60 square miles. This excludes 37·77 square miles covering *Diara* villages. But out of this about 9 square miles were partly surveyed but have not been shown as complete. For the purpose of discussing the cost rate the amount shown above as cost of building, forms and cost of *Hal* and *Sabik* Indices (Rs. 5,895+Rs. 6,937+Rs. 3,021 =Rs. 15,853) need be excluded from the total expenditure and the area excluded but partly surveyed (i.e., 9 square miles) with 5,400 plots has been added to 816·60 square miles actually surveyed and for which record of rights were prepared and made ready for attestation.

The incidence of cost is, therefore, Rs. 237 per square mile. This is a big increase compared with the cost in 1915-16, but if we compare the cost of the two years by the number of plots the increase is slight, the cost in 1916-17 being Rs. 9-9-4 per hundred plots and in 1915-16 Rs. 9-5-4.

50. *Municipalities.*—A map of the Sewan Municipality was prepared at the request of the Chairman. It showed only the roads and important buildings.

CHAMPARAN SETTLEMENT.

51. *Area and progress.*—The final publication of the Sadr Sub-division of Champaran (1,760 square miles) and of the *Diara* portion of Bettiah Subdivision was completed.

Government notifications under section 103-B of the Bengal Tenancy Act were published in respect of thanas Bagaha, Bettiah, Motihari, Kesaria, Gobindgunj, Madhuban, Adapur and Dhaka.

52. *Case work.*—The case work under sections 40, 105, and 106, Bengal Tenancy Act has assumed unprecedented proportions. The following are the figures :—

Section 105—

Instituted up to the end of the year	...	6,265 cases. 2,01,164 tenancies.
Disposed of up to the end of the year	...	3,276 cases. 83,605 tenancies.

Section 106—

Instituted up to the end of the year	...	5,427 cases.
Disposed of up to the end of the year	...	1,390 cases.

Section 40—

Instituted up to the end of the year	... ...	3,020 cases.
Disposed of up to the end of the year	... ...	285 cases.

The remainder, the recess work of the Sadr Sub-division was completed shortly after the commencement of the year.

53. *Recovery of cost.*—The recovery of costs for Bettiah Sub-division was taken up and nearly completed.

The figures are :—

	Rs.
Demand for Bettiah Sub-division ...	... 4,31,611
Realized up to the end of the year ...	... 4,14,010
Balance	... 17,601

Rs. 4,13,225 was realized without coercive process and Rs. 784 by certificate.

Of the balance recoverable Rs. 496 is due from occupiers, Rs. 5,194 from petty landlords, Rs. 7,461 from *Mokarraidars* and factory *thikadars* holding under proprietors other than the Bettiah Estate. Rs. 3,855 from factory *thikadars* under the Bettiah Estate, and Rs. 593 from the Bettiah Estate. When it is considered that the year was one of considerable agrarian excitement the collection has not been unsatisfactory.

54. The question of compromises under section 109-C especially in relation to the indigo enhancement was dealt with in the last annual report. The following are the additional figures for compromises since effected. All relate to the indigo question :—

	Rs.
Tenancies involved	... 2,779
Pre-enhancement rent	... 22,468
Enhanced rent	... 28,425
Compromised rent	... 28,425

The enhancements average 27 per cent. on the original rents.

55. The Champaran case work furnished few problems that have not been dealt with in the last annual report. (i) The Special Judge upheld the decisions of the Settlement Courts in not enhancing rents by the arithmetical formula of section 32, Bengal Tenancy Act, and in applying section 35. He has held that section 35 governs section 32 or, in other words, that section 35 means what it states. (ii) A large number of tenancies in the Bettiah Estate were recorded as *kabil lagan*, i.e., rent-free, but liable to rent. The Estate applied for the settlement of fair rents for these tenancies. The Revenue Officers took the average incidence of rent in the villages as the basis of assessment and allowed from two to four annas in the rupee over this average on the grounds of the increased value of the land and of agricultural produce. The Estate appealed, and the Special Judge agreed with the decisions. The cases were then withdrawn and rents will be settled either by agreement between the parties or by proceedings in the Civil Court.

The average incidence of rent in a village is the result of agreements between landlord and tenant over a long period and is influenced by new as well as by old settlements. It is difficult, therefore, to devise any safer basis of assessment. (*iii*) There are in the Bettiah Estate a number of small permanent tenures known as *Birit-Bandobasti*. They originated in the resumption and assessment by the Estate of additional land held rent-free without title by rent-free tenure-holders. The assessments were apparently deliberately low, usually at the rate of Re. 1 per *bigha*. The Estate claimed an enhancement of rents under section 7, Bengal Tenancy Act, and claimed a rent not based upon the existing rent, equivalent to the major portion of the assets of the tenure making an allowance for collection expenses as indicated in section 7(3). A Privy Council ruling (8, C. W. N. 1) was relied on to support the claims. It is true that in this one case the Privy Council

found that the disproportion between rent and assets was such as to raise a presumption that the existing rent was not fair and equitable, but it has not laid down as a general proposition that mere excess of rent over assets is in itself a reason for enhancement.

It was not attempted to prove a customary rate. Under the circumstances, the rents, not being fixed for ever, could be enhanced up to such limit as the Court thinks fair and equitable.

The Court, proceeding under section 105, must presume the existing rent fair and equitable until the contrary is proved. The onus is then on the applicant to prove the existing rent not fair and equitable. This could be done not by proving merely that the assets far exceeded the rent of the tenure but that the assets had increased since the existing rent was fixed. This increase could consist of—

(*a*) Income from newly reclaimed land.

(*b*) Enhanced rentals.

(*c*) Rise in the value of food-crops. This would apply only to land in direct cultivation of the tenure-holder. This was the view of the law actually adopted by the Settlement Officer and I think it would be difficult to defend the opposite view.

If tenure rents were re-assessed without regard to existing rents, the literal result would be that A could give to B a permanent tenure of 10 acres at a rent of 10 rupees, and could subsequenly ask the Court to enhance the rent to Rs. 70 because the lands yielded to B an income of Rs. 100.

SARAN SETTLEMENT.

56. *Area and Progress.*—The record-of-rights was attested for the Gopalganj Sub-division comprising 1,509 villages, 764 square miles, and 1,449,424 plots.

Twenty-six *Diara* villages comprising 4·45 square miles were excluded.

Section 103-*A Objections.*—The following are the figures :—

Total of objections	24,087
Allowed	7,447 or 31 per cent.
Disallowed	16,640 or 69 per cent.

Of the number allowed 2,980 were entirely new claims not advanced at any previous stage of the operations. When these are deducted the percentage allowed sinks to 21.

The result is satisfactory. The standard of the Attestation was above the average, the staff in general being very competent.

57. *Sales and Mortgages.*—Gopalganj Sub-division :—

(*a*) Forty-one sales of proprietary interests came to notice. Of the transferees 21 were landlords, 7 raiyats, 2 lawyers and 11 money-lenders. The purchase-money amounted to 49 times the Government revenue. The Champaran figures in the two previous seasons showed sales at 40 times (Sadr Sub-division) and 101 times (Bettiah Sub-division) the Government Revenue.

(*b*) The total number of transfers of raiyati holdings recorded for the last 10 years is 12,730 :—

	Rs. a. p.
Total price	1,44,280 2 3
Area transferred	13,555 acres.
Average price per acre	103 9 6

The Champaran averages were :—

	Rs. a. p.	
Bettiah Sub-division	59 14 0	per acre.
Sadr Sub-division	92 4 3	per acre.

(*c*) The total area of raiyati holdings mortgaged in 0 years is 43,405 acres.

Average advance ... ... Rs. 129 per acre.

The average for Champaran were :—

Sadr Sub-division	Rs. 64 per acre.
Bettiah Sub-division	Rs. 63 per acre.

It is to be noted—

(i) that the pressure of the population on the soil in Saran renders land more valuable than in the neighbouring district ;

(ii) that mortgages fetch more money than sales. This is mainly due to the non-transferability of raiyati rights without the landlord's consent and the consequent difficulty and expenses connected with mutation.

(iii) that the extent to which lands have been permanently or temporarily transferred does not indicate excessive poverty or indebtedness. It appeared that a very large proportion of the transferees are themselves *bonâ fide* cultivators who are in a position to advance money and speculate. It appeared also that cultivation in the tract is comparatively efficient and remunerative and that the people are industrious and enterprising and supplement their income from the land by emigrating to labour in Bengal.

53. *Costs* :—

	Rs.	
Total expenditure	1,46,740	
Receipts	23,498	
Net expenditure	1,23,242	or Rs. 161 per square mile.

The real test of economy is, however, the gross cost per 100 plots.

The following are the figures for the Attestation seasons since the North Bihar Revision commenced :—

	Rs. a. p.
Champaran, Sadr Sub-division	11 14 2
Champaran, Bettiah Sub-division	11 5 8
Saran, Gopalganj Sub-division	10 1 11

59. *Features of the Saran attestation.*—The conditions were extremely favourable in Gopalganj Sub-division where the old record is a living force and the greater part of the area is under the Hathwa Estate.

The very excellent records of this Estate, the content of the peasantry, the absence of illegal exactions, the control exercised over subordinates, the permanence and security of raiyati interests and the fair and reasonable attitude to judicial treatment, reflect great credit on the management, and made the work of the Settlement Officer and his Assistants easy and pleasant.

Rents have remained practically unchanged since the last Settlement and very few cases of illegal enhancement came to notice.

Rents are high and in places too high. It is doubtful if they will bear enhancement in this area. In a number of cases the rents after the enhancement proceedings of the last Settlement were more than the raiyats could pay

and the Hathwa Estate seeing that collections were endangered reduced them. In one village the average incidence of rent per acre after the last Settlement was Rs. 9-14-0. After reductions the average incidence per acre is now Rs. 8-10-0. Two interesting cases came to notice. In village Assudi (Thana Mirganj, No. 776) the average incidence of rent per acre at the last Settlement was Rs. 5-8-0. The Hathwa Estate realizing that this was too high reduced the rents. The present average incidence per acre is Rs. 2-10-6.

In village Mahuawa (Thana Mirganj, No. 779) the average incidence per acre at the last Settlement was Rs. 6-4-0. In this case no reductions were made. The result was that about 35 per cent. of the raiyati holdings were sold up for arrears of rent, re-settlements had to be made at a lower rate, and the average incidence per acre at present is Rs. 5-7.

It was noticed in a number of cases that where the average incidence at the last Settlement exceeded about one-fifth of the estimated gross produce the tendency has been for the average to decline. It is expected that the Saran revision will throw much light on the question of fair rent limits. Cultivation is efficient, competition for land is very keen, and all the conditions favour the existence of maximum rates.

60. *Section* 58, *Bengal Tenancy Act, and rent receipts.*—The Hathwa Estate invariably gives receipts in accordance with the law. Petty landlords generally give irregular receipts or none at all. It was thought desirable to send up under section 58 only those cases in which the irregularity or omission was connected with dishonest claims or had caused confusion with regard to the rents payable. Seventeen cases were reported to the Sub-divisional Officer of Gopalganj and fines were inflicted in 16 cases.

Singhbhum—The Kolhan Government Estate.

Area 1,367 *square miles;* 911 *villages ;* 10,47,466 *fields.*

61. *Programme.*—The year's programme consisted of (i) Attestation and draft publication of 731 square miles, (ii) Recess work of the area under attestation, (iii) Disposal of objections under section 83(1) of the Chota Nagpur Tenancy Act in the same area, (iv) Final publication of the records of 534 square miles (remainder of 1st season's area) ; (v) Disposal of post-publication suits of first season's area, (vi) Preparation of fair rent schedules. The whole programme was completed with the exception of the recess work of a few villages.

62. *Attestation.*—Attestation was completed by the end of April. Disputes were few and simple, *khuntkatti* enquiries being the only difficult portion of the work. These consist of two parts, (1) the proceedings deciding what raiyats have *khuntkatti* rights, done by the attestation officers, (2) the classification of the *khuntkatti* holdings into those of which the rent is (*a*) enhancible, (*b*) non-enhancible. This was done at headquarters by comparison with the maps and records of the last Settlement.

63. *Objections under sections* 83(1) *of the Chota Nagpur Tenancy Act.*—There were 237 objections all of which were disposed of.

64. *Final publication.*—The final publication of the records of the remaining 373 villages of the first year's area was completed.

65. *Suits under sections* 87, 130 *and* 252.—There were 14 and 5 suits under sections 87 and 130 of the Chota Nagpur Tenancy Act respectively, out of which one case under section 87 and one case under section 130 were disposed of. One case under section 252 is pending for disposal from last year.

66. *Fair rent settlement.*—Fair rents are to be settled for the whole estate under section 85 (2)(ii). The rates of rent proposed as fair were settled after consultation with the Deputy Commissioner and have been approved of by Government. Fair rents were settled in three villages as a test case and rent schedules have been prepared for the whole area. The fair rent settlement will be completed next field season.

Registers of the non-agricultural lands were compiled and made over to the Deputy Commissioner for settlement of rents by him.

67. *Cost.*—The total cost of all operations in the estate up to 30th September is Rs. 5,19,929. To bring the Settlement operations to an end in the estate will cost about Rs. 33,000 more. Of the total cost a sum of Rs. 1,822 will be recovered from the landlords of twelve *takhiraj* villages included in the estate. This sum represents half the total cost of the operations in these villages. The remainder of the expenditure will be borne by Government. The net cost comes to about seven annas per acre.

MAINTENANCE OF LAND RECORDS IN SAMBALPUR.

68. According to the sanctioned scheme for the preparation of new maps and records for the district of Sambalpur maps of 463 villages, covering an area of 782 square miles, and records of 448 villages containing 3,96,409 plots were prepared during the year under report, against maps of 453 villages, covering an area of 751 square miles and records of 446 villages containing 4,12,994 plots completed last year. The Superintendent and the Assistant Superintendent of Land Records were put in charge of five circles each, the former having his headquarters at Sambalpur and the latter at Sohela, about 44 miles from Sambalpur. Maps were passed and inked up at these headquarters.

69. The survey check amounted to 1,124 linear miles, giving an incidence of 1·43 linear miles per square mile, while the check of record-writing was 43,070 plots or about 11 per cent. of the total number of plots for which records were written during the year. The maintenance work as well as the survey and the map preparation work were adequately supervised by the Deputy Commissioner, the Sub-divisional Officer, the Superintendent and Assistant Superintendent of Land Records and other supervising officers.

The Superintendent of Land Records was on tour for 122 days while the Assistant Superintendent of Land Records was out for 162 days. Their chief duties were the supervision of the survey and the training of the *Patwaris* in survey. The outturn of work during the year under report is reported to be very good. The *Patwaris* have made considerable progress in drawing as a result of which the maps prepared during the year are exceptionally neat and clean. The old system of training the *Patwaris* at the headquarters of each Inspector's circle has been abandoned. Each *Patwari* is now given a practical training in survey and record-writing in the field as well as a training in recess work at headquarters. A candidate before he passes the examination, has to survey at least 1,500 acres in the field, prepare *jamabandi* of 500 *khatas* and extract areas of 2,000 plots. In this way it has been possible to train thoroughly the greater part of the staff with a consequent increase of efficiency. Good-conduct allowances were sanctioned for 33 *Patwaris* during the year under report, and measures were taken to improve the prospects of the staff as regards pay and promotion.

North Bihar Mutation Offices.

70. The experimental mutation offices at Hajipur and Mahnar in the district of Muzaffarpur were continued during the year under report. The total receipts from all sources amounted to Rs. 1,750-5-6 as against an expenditure of Rs. 2,213-10-6, showing a total loss of Rs. 463-5-0 on the working of both the offices.

Mutation in Government and Wards' Estates.

71. The results of the mutations affected during the year under report in Government and Wards' estates will be found in Appendix V. In the Government estates, the standard percentage of mutations, viz., 8 per cent. of the total number of tenancies, was maintained only in 8 districts, and with the exception of 8 estates in districts Muzaffarpur, Cuttack and Ranchi, it was

generally low in almost all the Wards' estates. As in previous years, the low percentage is attributed in some cases to the recent publication of the record-of-rights, or to the non-recognition of partitions of holdings. It is not clear, however, why transfers by sale or inheritance should be less numerous in the years immediately following a settlement than at other periods. In some of the estates in which the low percentage of mutations has been attributed to refusal to recognize transfers of portions of holdings, e.g., in the Sukhpur Wards estate in Bhagalpur and in the Narhan estate in Darbhanga, the returns show that a large proportion of the mutations actually registered were transfers of part holdings. In Chota Nagpur the small number of mutations is attributed to the inadmissibility of transfers of raiyati-holdings by sale or gift under the Chota Nagpur Tenancy Act. The percentage of mutations in some of the Wards' estates shows an improvement, but in the majority of cases, the low percentage is probably attributable to indequate inspections by the Managers.

Inspection of Rent-Rolls.

72. The results of the inspection of rent-rolls by superior and inferior agencies have been embodied in Appendix VIII. As in previous years, the percentage of check in some estates amounted to 100 per cent., but in a large number of such estates no unreported changes were detected. On the other hand, in the Patna and the Gaya Government estates and in the Narhan Wards' estate in Darbhanga the number of unreported changes detected by the check of the rent-rolls exceeds the total number of mutations registered. In Narhan the former are more than double of the latter. If the returns are correct it follows that in some estates the tenants rarely apply for mutation but leave all transfers to be brought to light by the check of the rent-rolls, while in others their applications for mutation are so promptly made that any check of the rent-rolls is unnecessary. The more probable explanation is that the returns are not being prepared on the same lines in all districts. The prescribed standard of 50 per cent. check of rent-rolls was not attained in several estates, and no satisfactory explanation of the failure to reach the standard has been furnished.

CHAPTER IV.—MAINTENANCE OF BOUNDARY MARKS.

(*See Appendix* IX)

73. The work of maintenance of boundary marks continued to receive the attention of the District Officers and generally adequate steps were taken for the restoration of the marks found missing or damaged. In Appendix IX will be found the details of the results of inspection in the different districts. The work of making over the trijunction marks to the custody of dafadars and chaukidars was completed during the year in districts Balasore and Puri. The boundary marks, maps and registers of districts Gaya and Champaran, were made over during the year by the Settlement Officers to the Collectors of the districts who are taking steps for the preservation of the marks in accordance with the rules contained in Part IV, Chapter II of the Settlement Manual, 1908. In the districts of Cuttack and Gaya proceedings under section 56 of the Bengal Survey Act (V of 1875) were drawn up in respect of the loss of certain marks and the cost of restoration was realized from the occupants of the conterminous lands.

74. During the year 9 special Ganges *Diara* pillars in the districts of Patna, Darbhanga and Bhagalpur, which had been washed away, were re-erected. Eleven pillars found lying uprooted or in positions liable to fluvial action were also shifted to safer sites.

75. *Fund for the Maintenance of boundary marks.*—There were no receipts to the Fund during the financial year 1916-17. As reported last year the total receipts up to date amount to Rs. 47,907. The total expenditure up to the end

of the financial year was Rs. 4,533-7-0 leaving an opening balance of Rs. 43,373-9-0. The expenditure during the financial year 1916-17 was Rs. 1,041-3-3, the details of which are noted below :—

	Rs.	a.	p.
Bhagalpur	97	1	9
Monghyr	185	12	6
Patna	56	6	6
Shahabad	70	14	6
Manbhum	25	0	0
Special Ganges Diara Reference Pillars	606	0	0
	1,041	3	3

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

76. *Charge.*—I was in charge of this Department throughout the year.

77. *Tours.*—I was on tour for 97 days, of which 86 days were spent in inspecting Settlement operations and 11 days in inspecting Traverse Survey and the Drawing Office. I paid 2 visits to the North Bihar Settlement, 1 to South Bihar, 4 to Chota Nagpur and 1 to the Kolhan Settlement.

78. *Merits of officers.*—Messrs. Tanner and Sweeney were as energetic and efficient in their work as usual. I consider the work done by both these officers to be of a very high standard.

The detailed examination and discussion of Palamau Settlement questions has occupied a considerable part of Mr. Bridge's time and has necessarily interfered to some extent with his ordinary work of supervision. This is undoubtedly to be regretted. At the same time the close study of the district and of its agrarian conditions which it has compelled him to make, has fitted him in a very special manner to carry out the general settlement of fair rents ordered by Government, a task which, without long experience and thorough knowledge of the district, a Settlement Officer would be rash to undertake.

The Covenanted Assistants, Messrs. Dain, Saunders, Tuckey and Toplis, continued to render valuable assistance to their Settlement Officers.

The following officers of the Provincial and Subordinate Executive Services deserve recognition for the work done by them during the year :—

I.—Deputy Collectors.

1. Babu Rajani Kanta Sen.
2. „ Sudhanshu Bhushan Mitra.
3. „ Akhouri Gopi Kishor Lal.
4. „ Phanindra Nath Gupta
5. „ Mathura Prashad Chaubey.
6. „ Phanindra Nath Mukharji.
7. Mr. L. B. Seal.
8. Babu Pashupati Ghosh.
9. „ Sharbari Kanta Gupta.
10. Mr. W. G. Kelly.
11. Khan Sahib Muhammad Hamid.
12. Babu Basanta Kumar Ray.
13. Maulavi Abdul Kadir Khan.
14. Babu Arun Nath Chakravartti.
15. Babu Nand Lal Bhagat.

II.—Munsifs.

1. Maulavi Abdul Aziz.
2. Babu Kshetra Nath Singh.
3. Babu Nirmal Chandra Ghosh.

III.—Sub-Deputy Collectors.

1. Mr. J. F. Gantzer.
2. Babu Bhagaban Mahapatra.
3. Babu Ashutosh Sen Gupta.
4. Babu Ramesh Chandra Chakravartti.
5. Pandit Birinchi Jha.
6. Babu Bansidhar Naik.
7. Babu Radha Mohan Patnaik.
8. Babu Ganesh Chandra Chandra.
9. Mr. J. E. Coutts.
10. Babu Bijay Kanta Sen.
11. Babu Nagendra Nath Ghosh.
12. Babu Jayadeva Misra.
13. Babu Dhanmassi Panna.

PART II.—TRAVERSE SURVEYS AND DRAWING OFFICE.

CHAPTER I.—TRAVERSE SURVEYS.

General Summary and General Remarks.

79. The programme of Traverse Survey in the district of Manbhum, which was sanctioned in Government Notification No. 5311-R—S-177, dated the 4th August, 1915, was 610 square miles. It was originally intended to take up the programme in the year 1915-16, but under Government orders it was subsequently deferred for a year. In addition to this seventeen miscellaneous petty surveys were undertaken and completed.

Programme and outturn.

80. Excluding the share of control, the cost-rate for the work done during the year in the district of Manbhum is Rs. 39·63 per square mile, against Rs. 34 for 1915-16 and Rs. 36·9 for 1914-15. The increase in the cost-rate is due to the decrease in the size of the annual programme. It is, however, below the standard.

Cost-rate.

CHAPTER II.—DISTRICT SURVEYS.

District Manbhum.

81. The programme consisted of the Traverse Survey of 776 villages in thana Manbazar, Police station Hura (thana Purulia), thana Gaurandi, and Pargana Koilapal in thana Barahabhum.

82. The country traversed is fairly flat, open and cultivated with the exception of the southern portion which is jungly. The climate and season were on the whole healthy.

83. The village boundaries were not properly demarcated until after the issue of numerous *Talbana* notices to the zamindars. The field work was completed by the middle of March. Revisions went on till the end of April.

CHAPTER III.—MISCELLANEOUS SURVEYS.

(*See* Appendix XI.)

84. The miscellaneous surveys were as follows:—

(1) *Balasore-Mayurbhanj Boundary.*—The remaining portion of the boundary between the district of Balasore and the Feudatory State of Mayurbhanj which was left undemarcated last season was taken up this year. The demarcation commenced from pillar No. 146 in village Chasakhand, which was fixed last season, and was carried on to pillar No. 550, in village Brahmanda, covering a distance of about 40 miles.

The boundary of village Gundaimara belonging to Mayurbhanj State and falling inside British territory was also demarcated.

(2) *Balasore-Nilgiri Boundary.*—The entire boundary between the district of Balasore and the Feudatory State of Nilgiri, about 75 miles in length, was demarcated on the same line as adopted for the Balasore-Mayurbhanj boundary. The demarcation was commenced from village Parukhi and closed on village Sujagarh. The sites of 293 new pillars were fixed and demarcated.

The boundary of village Aghiria, which belongs to the Nilgiri State and falls within British territory, was also demarcated.

(3) *Balasore-Keonjhar Boundary.*—The entire length of the boundary between the district of Balasore and the Feudatory State of Keonjhar extending over a distance of 31 miles was relaid from the original 16 inches cadastral sheets of 1892-93.

(4) *District Sambalpur.*—The traversing of 96 scattered villages covering an area of 140 square miles in thanas Sohela, Melchhamunda, Gaisilat, Ambabhona, Paikmal, Padampur, Jagdalpur, Katarbaga, Sambalpur, Mandher, Jharsogra and Dhama was undertaken at the instance of the Deputy Commissioner for the purpose of revision surveys.

(5) *Bamra-Kolabira Boundary.*—The traversing of the boundary dispute between the Feudatory State of Bamra and Kolabira zemindari in district Sambalpur was undertaken at the request of the Deputy Commissioner.

(6) *Jujomura-Rairakhol Boundary.*—The traversing of the disputed boundary between the Rairakhol Feudatory State and Jujomura estate in district Sambalpur was also taken up at the request of the Deputy Commissioner.

(7) *Ganges Diara Special Demarcation.*—The missing Ganges *Diara* reference pillars in the districts of Patna, Bhagalpur and Darbhanga were restored during this season.

Six new stones were erected and nine others which were in danger of being washed away by the river were transferred to safer sites.

(8) *District Palamau.*—The boundaries fixed in 15 boundary disputes in the area cadastrally surveyed in Palamau in the season 1915-16 were traversed and demarcated at the request of the Settlement Officer.

(9) *Monghyr Municipality.*—The re-survey of Monghyr Municipality comprising an area of 6·58 square miles, which was ordered in Government Notification No. 14458-M., dated the 16th November, 1916, was carried out during the year. The Settlement Officer of South Bihar was in charge of the detailed survey and record-writing.

(10) *Bhimbandh, Gaighat-Najari Boundary dispute.*—The remaining portion of the disputed boundary between villages Bhimbandh and Najari which was left incomplete last year was demarcated this season.

(11) *Jaitpur Sikandar, Rampur-Dumra and Jalalpur-Nauranga boundary disputes.*—The boundary between Jaitpur Sikandar in Pargana Salembad, district Mongyhr on one side, and villages Rampur-Dumra and Jalalpur-Nauranga in thana Mokameh, district Patna, on the other was demarcated according to a survey of 1885, at the request of the Collector of Monghyr.

(12) *District Purnea.*—The demarcation of a portion of estate Shahpur Dharmi in thana Dhamdaha, district Purnea, lying in villages Damraildarap and Bhandarsar, according to the maps of the latest cadastral survey, and that of mauza Shahpur Dharmi Milik according to the Revenue Survey of 1845 was carried out at the instance of the Collector.

(13) *District Shahabad.*—The relaying of the boundaries of village Bansgopal Chapra according to the Revenue Survey maps of 1839 was taken up at the instance of the Collector.

Turk Ballia.—Some of the boundary marks put down last year in Estate Turk Ballia, which had been removed by interested parties were restored.

(14) *District Cuttack.*—Traverse plots of the 144 villages comprising the Banki Government Estate in district Cuttack were prepared from the traverse tables of the year 1887-88 with a view to a re-survey and the revision of the record-of-rights of the estate.

CHAPTER IV.—BIHAR AND ORISSA DRAWING OFFICE.

(*See* Appendices XI and XII).

85. *Charge.*—Mr. J. H. Murphy held charge of the office except during the period from 10th April to 8th July, 1917, when he was on privilege leave, and Mr. P. D. Gomes officiated.

Imperial Standard Mapping Section.

86. The section was employed throughout the year on the drawing of fair originals, 15 minutes of latitude by 15 minutes of longitude on the 2-inch and 1½-inch scales, for reduction to the inch scale, as well as completion of margins and the insertions of hills of such sheets already published as are not complete in this respect, the data for the above being supplied by the 16-inch cadastral survey sheets and 4-inch thana maps of the province of Bihar and Orissa. The figures supplied by the Director of Suveys, Bengal, show the outturn for Bihar and Orissa as follows :—

(1) Twenty 2" standard sheets, 14 new and 6 old, covering an area of 4917·790 square miles were sent to the Map Publication Office for publication. The sheets relate to the district of Palamau, Gaya, Shahabad, Hazaribgah, Patna, Monghyr, Ranchi, Mirzapore, Purnea and Sarguja State in the Central Provinces.

(2) Fifteen new standard sheets relating to the districts of Palamau, Gaya, Hazaribagh, Saran, Shahabad, Ballia, Mirzapur, Balasore and Chakia State are under compilation and 8 old sheets are being revised and brought up to date. Sheets falling in district Manbhum remain to be done.

(3) Twenty-two uncorrected proofs were examined, 3 of which include portions of both provinces (Bengal and Bihar and Orissa).

(4) Seventy red, blue and yellow boundary colour guides were completed, 10 of which include portions of both provinces.

(5) Twelve published prints of standard sheets were coloured as office copies, two of which included portions of both provinces.

The Superintendent of Map Publication has directed that all sheets drawn in the Standard Mapping Section will in future be printed in colours to conform to the standard maps published by the Survey Department and several sheets sent for publication since early in January of this year have been so printed, and show a vast improvement on previous publications.

Provincial Drawing Office.

87. *District maps.*—The ½" map of district Patna has been completed and will shortly be sent for publication. The ½" map of district Sambalpur is in hand. The ½" map of district Shahabad which was completed last year has been sent for publication.

88. Although the cost of compiling these district maps is borne by the Provincial Government they are printed and published by the Survey of India which appropriates the profit derived from their sale. The Government of this province pays even for the copies supplied to it for the use of Government officers.

89. *Skeleton District maps.*—The skeleton district map of the Santal Parganas on the scale 1"=8 miles was completed and 100 copies were printed.

90. *Final Thana maps.*—Thirty-two thana maps on 51 sheets falling in districts Hazaribagh, Ranchi, Patna and the Santal Parganas were completed.

91. *Special Ganges Diara maps.*—Out of 138, the total numberof sheets for publication, 23 special Ganges *Diara* maps were compiled during the year and 23 were published. This brings the number published up to date to 103.

92. *Miscellaneous maps (inter-departmental).*—A number of maps consisting of 19 different items were prepared and reproduced for the Government Press, Heads of Departments and other offices for the purpose of illustrating reports and other works. These include six drawings for the School Examination Board; two traces for Bihar and Orissa Survey and Settlement Reports; a combined Revenue and Ganges *Diara* map of Raspur-Patasia, district Darbhanga; fourteen sketch maps for the Government Press; sixteen traces showing thana boundaries and Dafadari circles on thana maps of district Patna for the Superintendent of Police; and a plague chart for the Superintendent of the Government Press.

93. A statement showing the outturn of work in the Bihar and Orissa Drawing Office, together with the expenditure incurred during the year is given in Appendix XI.

94. *Cost-rates.*—A statement showing the cost per copy of various kinds of maps reproduced during the year is given in Appendix XII. Notwithstanding the rise in the cost of paper, cloth, chemicals and stationery, and the payment of Rs. 4,072 towards the cost of the Electric press, the cost-rates are on the whole lower than those of previous years. The increase of 11 pies per copy in the cost of final thana maps is due to the rise by 70 per cent. in the price of long-cloth on which they are printed.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

95. *Charge.*—I was in charge of the Survey Department throughout the year.

96. *Tours.*—I spent 97 days on tour, of which 11 days were spent in inspecting the office of the Traverse Section at Hazaribagh and the Bihar and Orissa Drawing Office at Gulzarbagh.

97. *Merits of Officers.*—The following officers of the Survey Department deserve much credit for the efficiency of the work carried out under their supervision during the year:—

Mr. J. H. Murphy and Mr. F. H. Alderson.

I have the honour to be,

SIR,

Your most obedient Servant,

P. W. MURPHY,

Director of Land Records and Surveys,

Bihar and Orissa.

B. & O. G. P. (D. L. P.) No. 23(e)275+I—18-1-1918—A. W. G.

APPENDICES.

APPEN

[*See* Chapters II and III of

General Progress of Survey and Settlement

Note.—The areas shown in this Appendix

Division and District.	Name of estate or tract under settlement.	Date of inception of operations.	Estimated area in square miles under settlement.	Total number of villages.	Area cadastrally surveyed in square miles.			AREA IN		
								In which records were prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
										Government
										Nil.
										II.—Other
Patna.										(*a*) *Or*
Gaya ...	Gaya District ...	October, 1912...	4,703	6,782	4,703	...	4,703	4,703	...	4,703
Chota Nagpur.										
Hazaribagh ...	Hazaribagh District...	October, 1909...	6,908	7,007	6,908	...	6,908	6,908	...	6,908
Palamau ...	Palamau District ...	November, 1913	4,702	3,598	3,778	924	4,702	3,778	922	4,700
Patna.										(*b*) *Revi*
Gaya ...	Gaya District ...	.....	33	52	33	...	33	33	...	33
Tirhut.										
Champaran ...	Champaran District...	September, 1913	*3,254	2,853	3,254	...	3,254	3,254	...	3,254
Saran ...	Saran District, Gopalganj and Sewan Subdivisions.	October, 1915	2,674	4,865	769	816	1,585	769	816	1,585
Chota Nagpur.										
Singhbhum ...	The Kolhan Government Estate.	October, 1913	1,367	913	1,367	...	1,367	1,367	...	1,367
	Total ...	...	23,641	26,070	20,812	1,740	22,552	20,812	1,738	22,550

DIX I.

Part I of the Report.]

during the year ending 30th September, 1917.

are to the nearest square mile.

SQUARE MILES.													
In which attestation was completed.			In which draft publication was completed—			In which final publication was completed—			Cost of operations—			Total cost-rate in the operations shown as completed in this return.	
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
									Rs.	Rs.	Rs.		
LAND REVENUE.													
Estates.													
SETTLEMENTS.													
ginal.													
4,703	...	4,703	4,703	...	4,703	1,712	2,991	4,703	11,41,426	1,33,059	12,74,485	...	...
													Rs. a. p.
6,908	...	6,908	6,908	...	6,908	6,882	26	6,908	16,93,625	17,731	17,11,356	...	247 12 0
2,586	1,147	3,733	2,586	1,147	3,733	1,172	1,419	2,591	6,49,687	2,13,644	8,63,331	...	...
sional.													
33	...	33	33	...	33	33	...	33	40,889	...	40,889	....	...
3,254	...	3,254	3,254	...	3,254	1,493	1,761	3,254	6,09,234	28,249	6,37,483	...	*Excludes municipal area.
...	764	764	...	764	764	...	...	...	1,87,645	3,34,864	5,22,509	..	...
636	731	1,367	636	731	11,367	102	534	636	2,62,174	57,755	3,19,929	...	...
18,120	2,642	20,762	18,120	2,642	20,762	11,394	6,731	18,125	45,84,660	7,85,302	53,69,982	...	...

APPENDIX II.

[*See* Chapter II of Part I of the Report.]

PART A.

Progress in Settlement of Rents under section 104, *Act VIII of* 1885, *in areas that were under settlement of Land Revenue during the year ending* 30*th September*, 1917.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents were proposed.			Number of villages for which settlement rent-roll was published in draft—			Objections under section 104E.		
										Instituted—		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Gaya ...	100·66	112	...	3,205	5,303	8,508	11	101	112	358	1,567	1,925

Estate or tract under settlement.	Objections under section 104E.			Number of villages and tenants of which during the year a settlement rent-roll has been confirmed.						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			To the end of the previous year.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent, + or—
1	14	15	16	17	18	19	20	21	22	23	24	25
										Rs.	Rs.	
Gaya ...	...	1,925	1,925	...	...	112	8,508	112	8,508	78,677	91,385	+16·15

APPENDIX II.

PART B.

Progress in Settlement of Rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1917.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109 (c), Bengal Tenancy Act.				Number of section 105 cases which were instituted—			
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	To the end of the previous year.		During the year.	
								Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12
					Rs.	Rs.	Rs.				
Gaya ...	4,735	6,834	714,283	...	...	...	...	1,195	11,072	321	3,788
Hazaribagh ...	6,908	7,007	...	...	...	...	...	4,941	61,424	2	176
Do. Section 85 (2) (ii), C. N. T. Act.	...	...	...	...	...	...	...	814	4,374	287	591
Palamau, under Section 85 (3) (b).	...	...	...	...	...	...	...	4	133	...	...
Do. Section 85 (2), (i) C. N. T. Act.	...	...	...	...	...	...	...	359	6,745	592	8,306
Champaran ...	3,254	2,853	546,098	2,779	28,426	22,468	28,426	3,444	103,562	2,821	97,602
Saran	2,674	4,865	229,494*	8	33	33	21	...	...	...	...

*For Gopalganj Subdivision only.

Estate or tract under settlement.	Number of section 105 cases which were instituted.		Number of cases which were disposed of—						Of tenants in column 18.		
	Total.		To the end of the previous year.		During the year.		Total.		Former rental.	New rental.	Difference per cent. + or −.
	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.			
1	13	14	15	16	17	18	19	20	21	22	23
									Rs.	Rs.	
Gaya	1,516	14,860	1,083	8,516	415	6,061	1,498	14,577	72,258	79,774	+10·40
Hazaribagh ...	4,943	61,600	3,279	44,816	1,663	16,783	4,942	61,599	1,02,090	1,14,649	+12·30
Do. Section 85 (2) (ii), C. N. T. Act.	1,101	4,965	814	4,374	286	590	1,100	4,964	6,770	6,244	−7·75
Palamau, under Section 85 (3) (b).	4	133	4	133	...	...	4	133	...	...	...
Do. Section 85 (2), C. N. T. Act.	951	15,051	11	181	13	50	24	231	...	...	...
Champaran ...	6,265	201,164	501	8,267	2,775	61,488	3,276	83,605	4,50,575	4,97,696	+10·5
Saran	...	...	...	...	...	...	...	...	...	...	...

APPENDIX III:

Statement showing the nature and number of the holdings recorded in each settlement during the year ending 30th September, 1917.

Name of estate or tract under settlement.	Number of Khatians recorded in the name of—													
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.	Remarks.
	As private lands.	Not as private lands.						Service tenure.	Others.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Other Settlements.														
(a) Original.														
Palamau	69	7,343	...	...	* 49 42,204	8,116	1,253	2,653	779	7,063	187	69,716	2,711	**Khuntkatti.*
(b) Revisional.														
Saran	393	1,879	4,275	342	1,93,035	130	1,043†	3,060	12,770	10,118	955	2,28,000‡	21,413	†Includes 302 *diara* raiyats. ‡Excludes 1,494 *Abpashi* khatians.

APPENDIX IV.

[*See* Chapter II, Part I of the Report.]

Showing the progress made in recovery of costs during the year ending 30*th September,* 1917.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.							Balance.		
						Landlords' share.			Occupiers' share.			Grand Total collected.			
			Landlords' share.	Occupiers' share.	Total.	Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.		Landlords' share.	Occupiers' share.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Gaya	Gaya district	5,62,485	2,64,333	8,26,818	5,30,030	6,840	5,36,870	2,63,955	140	2,64,095	8,00,965	25,615	238	25,853
Chota Nagpur	Hazaribagh	Hazaribagh district	31,637	342	31,979	8,402	22,755	31,157	56	181	237	31,394	480	105	585
Ditto	Palamau	Palamau district	1,25,403	51,727	1,77,130	92,391	6,353	98,744	51,462	265	51,727	1,50,471	26,659	...	26,659
Tirhut ...	Champaran	Champaran district	6,09,091	2,54,132	8,63,223	5,73,313	1,568	5,74,881	2,53,138	1	2,53,139	8,28,020	34,211	992	35,203

APPENDIX V.

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1917.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																Rs.
Patna ...	43 Estates ...	53,646·71	6,007	11	33	379	186	...	8	...	...	390	222	10·18	1,454·20	22 to 1,501
Gaya ...	12 Estates ...	54,422·38	5,245	31	99	184	7	...	9	2	...	217	115	6·33	1,366·09	20 to 100
Shahabad ...	30 Estates ...	82,919·48	11,179	223	25	616	29	13	4	10	...	862	58	8·22	2,214·66	20 to 130
Tirhut Division.																
Darbhanga ...	Bakhtiarpur ...	1,104·95	525	2	7	1	...	...	...	...	...	3	7	1·90	12·04	100
Do. ...	Hardaspur ...	309·60	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Saran ...	Makhdumganj ...	222·65	129	3	...	1	...	...	2	...	2	4	4	6·20	2·19	92
Do. ...	Mudha ...	360·11	254	18	...	...	...	...	...	...	...	18	...	7·08	28·	...
Do. ...	Ramdaschak ...	2·25	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Deopura ...	22·59	41	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kaithwalia ...	82·32	74	2	...	...	...	...	...	...	...	2	...	2·70	4·38	...
Do. ...	Bangra ...	970·26	216	5	1	6	11	...	...	1	12	12	24	11·57	47·48	175
Bhagalpur Division.																
Santal Parganas ...	7 Estates ...	193,497·62	4,445	93	36	251	21	...	...	...	1	343	58	9·02	162·18	594
Bhagalpur ...	Diara Estates ...	23,360·32	2,217	28	29	19	...	2	...	...	...	44	29	3·29	487·90	50
Do. ...	Sadar Khas Mahal...	219·46	25	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Railway B. class land	253·66	123	2	1	...	...	...	...	...	...	2	1	2·43	7·54	50
Do. ...	Madhipura ...	3,358·33	723	25	9	20	...	...	7	...	...	45	16	8·44	100·	100
Do. ...	Supaul ...	4,171·75	230	2	...	6	...	...	...	...	...	8	...	3·48	108·39	6
Monghyr ...	Diara and other Estates.	66,275·	13,430	53	30	59	3	30	3	2	...	144	36	1·34	1,528·50	82
Purnea ...	Belwa Harinkhori...	4,881·26	1,364	1	10	7	...	...	...	...	...	8	10	1·26	37·61	33
Do. ...	Bagmara ...	1,834·26	105	4	...	3	...	...	...	...	...	7	...	6·66	287·57	5
Orissa Division.																
Cuttack ...	Banki ...	75,030·45	36,405	127	787	556	1,176	46	435	1	5	730	2,403	8·6	384·73	160
Balasore ...	Bichitrapur ...	2,546·31	1,025	13	17	...	...	...	...	...	...	12	17	2·83	88·57	50
Do. ...	Nayanand Birso ...	17,987·	11,573	91	295	32	27	...	2	3	1	126	325	3·9	415·	69
Do. ...	Chandbali ...	178·	130	2	...	...	...	...	...	...	...	2	...	1·5	2·	246
Do. ...	Bhadrak Salt Gola	4·	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Angul ...	Angul ...	577,376	33,389	5	58	824	1,499	...	74	3	9	832	1,640	7	82·73	61
Puri ...	Kodhar ...	5,276·52	1,390	1	11	2	...	...	1	...	...	3	12	1·07	...	...
Do. ...	Khurda ...	575,495	218,430	557	1,386	145	36	4	3	64	24	770	1,449	1·01	1,643·62	155
Do. ...	Balukhand ...	573·67	322	3	...	...	...	...	...	...	...	3	...	1	·56	1,000
Sambalpur ...	Gaontiahi ...	553,091·94	38,313	149	481	1,051	62	6	44	40	15	1,246	602	5	16,669·78	35
Do. ...	Raiyatwari ...	8,137·90	314	...	...	10	...	...	...	...	...	10	...	3	109·03	...
Chota Nagpur Division.																
Hazaribagh ...	Kharagdiha ...	47,261	1,856	...	...	63	...	...	1	...	...	63	1	3·44	811·24	...
Do. ...	Hata ...	7,270·37	2,197	1	...	12	1	...	11	1	1	14	13	1·22	23·30	200
Do. ...	Kodarma ...	36,460	3,253	2	...	120	153	...	...	...	...	122	153	8·45	2,161·25	200
Lohardaga ...	Palamau Baldehri, and Gogoya.	272,425·05	17,340	5	6	800	657	5	18	...	...	810	681	8·56	6,625·91	2—12
Manbhum ...	Barkagarh ...	67,394·62	6,650	58	...	339	...	...	...	...	2	397	2	6	...	175
Do. ...	Patia ...	5,185·84	746	...	...	32	...	...	...	...	...	32	...	4·2	...	...
Do. ...	Silum	3,058·36	81	...	...	4	...	...	...	...	...	4	...	4·9	...	...
Do. ...	Doranda ...	259·97	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kadru	140·39	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Hinu	114·71	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kusai	87·82	3	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	3,047,270·48	4,19,819	1,510	3,321	5,542	3,868	106	617	127	72	7,285	7,878	3·61	36,872·50	...

APPENDIX V—*contd.*

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1917.

WARDS' ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Gaya	Maksudpur ...	30,044	5,225	49	61	202	...	14	18	...	...	265	79	6·5	1,140	...
Shahabad	Awa ...	876·80	974	1	...	1	...	...	...	...	...	2	...	·20	5·91	100
Do.	Bijaigarh ...	4,403·20	734	3	...	50	...	...	...	...	...	53	...	7·22	370·00	150
Do.	Chougain ...	7,750·40	2,951	3	...	24	...	...	...	3	...	30	...	1·01	148·78	120
Do.	Surajpura No. II ...	5,202·80	2,325	...	...	...	...	...	...	...	...	...	...	...	...	...
Tirhut Division.																
Saran	Majhauli ...	21,326	4,769	9	...	1	...	1	...	...	...	11	...	·2	24·28	200
Do.	Mushrakh ...	8,799	5,349	19	3	2	...	1	1	1	...	23	4	·5	38·91	200
Muzaffarpur, Champaran and Saran.	Bettiah ...	1,375,638·20	230,303	128	39	592	1	...	...	6	...	726	40	·33	447·09	117
Muzaffarpur ...	Sursand No. I ...	14,585·56	6,700	90	523	271	...	22	...	...	...	383	523	13·5	1,100·50	121—8
Do. ...	Do. No. II ...	6,045·54	3,121	21	181	102	...	6	...	...	...	129	181	9·9	291·88	130·13
Do. ...	Mahtha Estate ...	8,126·66	3,553	10	...	49	...	..	...	...	...	59	...	1·6	6.	269
Darbhanga, Patna, Muzaffarpur and Monghyr.	Narhan ...	73,391·64	23,490	191	319	563	17	...	2	7	2	761	340	4·6	479·99	126
Bhagalpur Division.																
Santal Parganas ...	Sankara ...	51,712	157	...	...	...	...	...	...	...	...	..	...	...	...	...
Do. ...	Punasi ...	21,542	251	...	1	7	2	...	...	...	...	7	3	3·98	2,439·70	...
Bhagalpur	Sukhpur ...	18,357·86	4,059	...	13	...	...	...	...	...	...	...	13	·32	74·62	30
Do.	Shahpur ...	7,069	1,505	15	12	3	...	...	2	...	..	18	14	2·1	104	50
Do.	Lagma ...	7,350	1,920	4	39	16	...	...	...	...	...	20	30	3·07	125	50
Do.	Sonbarsa ...	65,044·12	15,378	42	...	1,037	...	...	...	....	...	1,079	...	7·	6,302·70	20
Do.	Barari ...	56,611	24,119	97	16	70	...	...	...	2	...	169	16	·76	856	23
Do.	Bhupendra Narain Estate.	65,344	11,766	46	435	1	...	...	2	...	1	47	438	4·1	953·63	35
Monghyr	Bahadurpur ...	60,389	11,625	63	21	501	...	10	22	...	...	574	43	5·30	2,003	45
Do.	Shakarpura ...	1,073	395	4	...	36	...	...	1	...	...	40	1	10·38	219	93
Orissa Division.																
Cuttack	Darpan ...	68,727	26,961	150	411	885	1,052	1	44	3	11	1,039	1,518	9·48	3,866	81
Do.	Dompara ...	53,469·46	9,087	25	96	319	344	1	8	...	...	345	448	8·7	58·60	69
Balasore	Kaupur ...	24,258	8,335	150	321	110	10	3	5	5	4	268	340	7·3	340	61
Puri, ...	Parikud ...	44,276	6,299	21	28	340	15	3	3	1	1	365	47	6·	389·27	22
Sambalpur	Malguzari ...	112,522·21	2,956	38	32	116	2	...	5	3	2	157	41	6·	1,696·94	20
Chota Nagpur Division.																
Manbhum	Patkum ...	190,537	3,988	7	2	2	...	...	...	...	...	9	2	·27	7,231·05	4—3
Do.	Naro ...	9,336·77	916	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Tinsaya ..	12,487	115	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Dhadka ...	129·35	412	1	...	2	...	...	...	...	...	3	...	·72	...	..
Do.	Matha ...	13,375	347	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Barabhum ...	410,772	5,392	13	...	...	...	5	...	...	...	18	...	·33	432	...
Hazaribagh... ...	Ramgarh ...	2,831,731	13,487	...	...	16	...	...	...	...	...	16	...	·11	321·82	..
Ranchi	Parba ...	34,929	170	...	...	3	...	...	...	...	...	3	...	1·7	...	...
Do.	Barki Beura ...	18,592	212	...	...	1	...	...	...	...	...	1	...	·47	...	...
Do.	Biru ...	6,26,094	2,112	...	...	4	...	...	...	...	...	4	...	2·	...	...
Do.	Anabiri ...	8,290	224	...	...	19	...	...	...	...	...	19	...	8·4	...	...
Do.	Bhargaon ...	2,683	203	...	...	12	...	...	...	...	...	12	...	5·9	...	...
Do.	Loro ...	7,023	264	...	...	17	...	...	...	...	...	17	...	6·4	...	...
Do.	Redwa ...	31,360	165	...	...	2	...	...	...	...	...	2	...	1·2	...	...
Do.	Badla ...	7,938	509	...	...	25	...	...	...	...	...	25	...	4·9	...	...
Do.	Masmano ...	16,023	715	...	...	28	...	...	...	...	...	28	...	3·9	...	...
	Carried over ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX V—*concld.*

WARDS' ESTATE.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Chota Nagpur Division—concld.																
	Brought forward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ranchi	Hatma ...	25,216	657	...	...	34	...	...	...	—	...	34	...	5·1	...	...
Do.	Siri ...	41,600	722	...	...	40	...	...	...	...	...	40	...	5·5	...	...
Do.	Chakla ...	5,901	303	...	...	6	...	...	...	...	...	6	...	1·9	...	...
Do.	Tupudana ...	5,328	372	...	...	9	...	...	...	...	...	9	...	2·4	...	...
Do.	Jonha ...	21,018	426	...	...	10	...	...	...	...	...	10	...	2·3	...	...
Do.	Jeria ...	3,35,738	3,304	...	...	138	...	...	...	...	...	138	..	4·1	...	...
Do.	Hazam ...	3,498	172	...	...	22	...	...	...	...	...	22	...	12·7	...	...
Do.	Burhadih ...	18,875	398	...	...	14	...	...	...	...	...	14	...	3·5	...	...
Do.	Oreydaru ...	3,340	187	...	...	6	...	...	...	...	...	6	...	3·2	...	...
Do.	Jamudag ...	6,654	324	...	...	9	...	...	...	...	...	9	...	2·7	...	...
Do.	Loahatu ...	15,360	427	...	...	39	...	...	...	...	...	39	...	9 1	...	...
Do.	Tamar ...	3,31,220	1,057	...	...	24	...	...	...	...	...	24	...	2·2	...	...
Do.	Mardhan ...	18,992	397	...	...	5	...	...	...	...	...	5	...	1·2	...	...
Do.	Pola ...	3,859	195	...	...	2	...	...	...	...	...	2	...	1	...	...
Do.	Kulmunda ...	20,082	298	...	...	31	...	...	...	...	...	31	...	10·4	...	...
Do.	Nare Kela ...	3,398	101	...	...	2	...	...	...	...	...	2	...	1·9	...	...
Do.	Armai ...	2,65,258	3,442	...	..	92	...	...	...	...	...	92	...	2·6	...	...
Do.	Jingi ...	12,461	186	...	...	6	...	...	...	...	...	6	...	3·2	...	...
Do.	Harmu ..	1,259	71	...	...	3	...	...	...	...	..	3	...	4·2	...	...
Do.	Banapiri ...	1,825	248	...	...	3	...	...	...	...	...	3	...	1	...	...
Do.	Chorea ...	7,186	434	...	...	2	...	...	...	...	...	2	...	·46	...	...
Do.	Guru ...	3,424	201	...	...	2	...	...	..	...	...	2	...	·99	...	...
Do.	Bajpur ...	8,111	438	...	...	1	...	...	...	...	...	1	...	·22	...	...
	Total ...	76,05,377·57	4,57,898	1,200	2,563	5,929	1,443	67	113	31	21	7,227	4,130	2·48	31,827·60	...

APPENDIX VI.

[*See* Chapter III of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1917.

GOVERNMENT ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Patna	Government Estates	8	17·52	8	17·52
Gaya	Ditto ...	44	167·82	38	133·53
Shahabad	Ditto ...	10	0·51	1	4·76
BHAGALPUR DIVISION.					
Santal Parganas ...	Ditto ...	24	4·09	14	3·01
Bhagalpur	Railway "B" class land.	1	·40	1	·40
Monghyr	Diara and other Estates.	101	433·01	101	433·01
ORISSA DIVISION.					
Cuttack	Banki	20	4·93	19	4·91
Balasore	Bichitrapur ...	10	6·21	7	8·44
Do.	Nayanand Birso ...	1	·97	2	4·95
Angul	Angul ...	76	275·39	42	104·74
Puri	Khurda ...	36	13·83	32	10·24
CHOTA NAGPUR DIVISION.					
Hazaribagh	Kharagdiha ...	1	0·60	...	...
Do.	Hata ...	1	0·04	...	...
Do.	Kodarma ...	5	19·70	1	11·18
Palamau	Palamau, Baldihri and Gogoya.	480	1,702·41	312	1,230·40
Ranchi	Barkagarh ...	...	...	8	38·16
	Total ...	818	2,647·43	586	2,005·25

APPENDIX VI—*concld.*

[*See* Chapter III of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1917.

WARDS' ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Gaya	Maksudpur ...	52	278	40	192
Shahabad	Awa	31	79·65	2	6·46
Do.	Bijaigarh ...	27	78·36	20	48·45
Do.	Chougain ...	152	357·69	18	97·88
Do.	Suraj Pura No. II...	61	258·17	....	...
TIRHUT DIVISION.					
Saran	Majhauli ...	18	22·41	7	3·39
Do.	Masrakh ...	1	7	1	7
Muzaffarpur, Champaran and Saran.	Bettiah ...	97	194·78	97	194·78
Muzaffarpur... ...	Sursand No. I ...	10	12·57	6	10·53
Do.	Sursand No. II ...	16	13·17	7	7·51
Do.	Mahtha ...	25	27·62	...	...
Patna, Darbhanga, Muzaffarpur and Monghyr.	Narhan ...	220	542·12	25	9·64
BHAGALPUR DIVISION.					
Bhagalpur ...	Sukhpur ...	93	57·60	20	281·29
Do.	Lagma ...	...	...	4	4·42
Do.	Sonbarsa ...	1,614	3,414·18	260	450·48
Do.	Barari ...	341	196·99	31	2·60
Do.	Bhupendra Narayan Ward's Estate.	501	1,720·14	112	442·50
Monghyr	Bahadurpur ...	530	1,532	192	342
Do.	Shakarpura ...	7	2·90	1	·50
ORISSA DIVISION.					
Cuttack	Darpan ...	266	231·97	67	74·29
Do.	Dompara ...	2	2·59	2	2·59
Balasore	Kaupur ...	...	...	28	28·86
Puri	Parikud ...	98	274·44	70	211·47
Sambalpur	Malguzari ...	1	·08	1	·08
CHOTA NAGPUR DIVISION.					
Manbhum	Patkum ...	51	199·50	7	21
Do.	Naro ...	29	58	1	·50
Do.	Tinsaya ...	5	40	1	3·75
Do.	Dhadka ...	18	22	...	...
Hazaribagh	Ramgarh ...	150	217·20	14	53
	Total ...	4,416	9,841·13	1,034	2,496·97

APPENDIX VII.

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1917.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates	569	1,746·16	Otherwise.
Gaya ...	Ditto ...	62	95·53	
Shahabad ...	Ditto ...	92	36·58	
Tirhut Division.				
Darbhanga ...	Bakhtiarpur ...	3	·25	Otherwise.
Do. ...	Hardaspur ...	5	11·12	
Bhagalpur Division.				
Santal Parganas	Government Estates	3	1·24	Settlement rate.
Bhagalpur ...	Diara Estate ...	64	572·18	Otherwise.
Do. ...	Railway "B" class land.	1	1·50	
Do. ...	Supaul ...	12	43·90	
Monghyr ...	Diara Estate ...	78	361·90	
Purnea ...	Laukahi ...	3	1·65	
Orissa Division.				
Cuttack ...	Banki ...	222	158·87	Settlement rates.
Balasore ...	Bichitrapur ...	1	0·92	
Do. ...	Nayanand Birso...	2	0·37	
Angul ...	Angul ...	189	501·77	
Puri ...	Khurda ...	711	876·27	
Do. ...	Balukhand ...	13	2·17	Otherwise.
Sambalpur ...	Gaontiahi ...	227	471·17	
Do. ...	Raiyatwari ...	3	4·86	
Chota Nagpur Division.				
Hazaribagh ...	Kharagdiha ...	29	52·48	Otherwise.
Do. ...	Hata ...	1	·17	
Do. ...	Kodarma ...	31	60·41	
Palamau ...	Palamau, Baldihri and Gogeya	32	42·46	Settlement rates.
Ranchi ...	Barkagarh ...	122	119·94	
Do. ...	Kadru ...	1	1·04	
Do. ...	Silum ...	11	...	
	Total ...	2,467	5,181·74	

APPENDIX VII—*concld.*

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1917.

WARDS' ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Gaya ...	Maksudpur ...	69	48·	Otherwise.
Tirhut Division.				
Saran ...	Majhauli ...	28	15·50	Otherwise.
Do. ...	Mashrakh ...	24	11·20	
Muzaffarpur, Champaran and Saran.	Bettiah ...	148	170·80	Village rates.
Muzaffarpur ...	Sursand No. I ...	101	54·31	Otherwise.
Do. ...	Sursand No. II ...	34	26·68	
Darbhanga, Patna, Muzaffarpur and Monghyr.	Narhan ...	90	190·41	
Bhagalpur Division.				
Bhagalpur ...	Sukhpur ...	8	88·50	Otherwise.
Do. ...	Shahpur ...	1	·24	
Do. ...	Lagma ...	3	·39	
Do. ...	Sonbarsa ...	201	382·51	
Do. ...	Barari ...	105	166·60	
Do. ...	B. N. Wards Estate...	14	46·50	
Monghyr ...	Bahadurpur ...	213	257·	
Do. ...	Shakarpura ...	1	·24	
Orissa Division.				
Cuttack ...	Darpan ...	221	248·	Settlement rate.
Do. ...	Dompara ...	635	373·41	
Balasore ...	Kaupur ...	38	81·53	
Puri ...	Parikud ...	2	6·96	
Sambalpur ...	Malguzari ...	2	1·52	Otherwise.
Chota Nagpur Division.				
Manbhum ...	Patkum ...	2	2·	Settlement rates.
Hazaribagh ...	Ramgarh ...	53	408·67	
Ranchi ...	Hatma ...	1	4·75	
Do. ...	Jaria ...	17	23·29	
	Total ...	2,011	2,609·01	

APPENDIX VIII.

[*See* Chapter III, Part I of the Report.]

Showing the results of the inspection of rent-rolls for the year ending 30th September, 1917.

Government Estates.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government Estates ...	81	8,007	81	7,680	95·91	537	81	5,955	74·37	63
Gaya	Do. ...	117	5,508	107	5,224	94·84	286	101	5,245	95·22	220
Shahabad ...	Do. ...	195	12,754	169	8,110	63·5	237	143	7,878	61·7	118
Tirhut Division.											
Saran	Makhdumganj ...	3	129	3	129	100	...	2	102	79·06	...
Do.	Mudha	2	254	2	254	100	...	1	202	79·52	...
Do.	Ramdaschak ...	1	4	1	4	100	...	...	...	...	...
Do.	Deopura	1	41	1	41	100	...	...	...	...	...
Do.	Kaithwalia ...	1	74	1	74	100	...	...	...	...	...
Do.	Bangra	8	216	8	216	100	...	8	32	14·8	...
Darbhanga ...	Bakhtiarpur ...	2	525	2	525	100	...	2	525	100	...
Do.	Hardaspur ...	1	5	1	5	100	...	1	5	100	...
Bhagalpur Division.											
Santal Parganas ...	Damin-i-koh ...	22	985	11	130	14·1	...	...	...	...	...
Do. ...	Hiranpur Amrapara ...	2	227	2	227	100	3	2	15	6·60	...
Do. ...	Sahibganj ...	8	2,523	8	2,523	100	110	8	147	5·82	...
Do. ...	Other Khas Mahals ...	9	558	9	558	100	4	7	200	35·84	...
Do. ...	Nayabazar ...	1	31	1	31	100	...	1	4	12·90	...
Do. ...	Railway B. class lands	9	112	9	112	100	...	9	33	29·46	...
Do. ...	Bijaypur	1	9	1	9	100	...	1	9	100	...
Bhagalpur ...	Diara Estate ...	6	2,217	6	2,217	100	85	6	2,217	100	85
Do. ...	Sadr Khas Mahals ...	7	25	7	25	100	2	7	25	100	2
Do. ...	Railway B. class land	21	123	21	123	100	13	21	123	100	13
Do. ...	Madhipura ...	15	723	15	723	100	...	6	483	66·80	...
Do. ...	Supaul	15	230	15	230	100	...	9	156	67·83	...
Monghyr ...	Diara and other Estates.	72	13,430	65	5,925	44·12	201	52	2,673	19·90	167
Purnea ...	Belwa Harinkhori ...	6	1,364	6	403	29·54	25	6	454	33·28	27
Do. ...	Bagmara	1	74	1	43						
Do. ...	Laukahi	1	64	1	10	35·71	19	3	52	30·95	10
Do. ...	Sohari Sobhai ...	1	30	1	7						
Orissa Division.											
Cuttack ...	Banki	144	24,526	124	11,197	45·65	545	116	1,348	5·4	279
Balasore ...	Bichitrapur ...	6	1,025	...	...	...	...	...	...	...	...
Do. ...	Nayananda Birso ...	104	11,573	...	...	...	...	...	...	...	...
Do. ...	Chandbali ...	1	130	...	...	...	...	...	...	...	...
Do. ...	Bhadrak Salt Gola ...	1	1	...	...	...	...	...	...	...	...
Angul ...	Angul	632	33,389	611	33,139	99	1,706	65	7,372	22	13
Puri ...	Kodhar	5	1,390	5	1,390	100	...	5	90	6·47	...
Do. ...	Balukhand	1	322	1	308	95·65	...	1	322	100	...
Sambalpur ...	Gaontiahi ...	811	38,313	782	36,998	97	1,848	20	938	2	15
Do. ...	Raiyatwari ...	17	314	17	314	100	10	...	...	...	...
Chota Nagpur Division.											
Hazaribagh ...	Kharagdiha ...	146	1,856	60	595	32·06	22	24	273	14·69	...
Do. ...	Hata	22	2,197	14	1,568	71·37	12	13	440	20·02	1
Do. ...	Kodarma	101	3,253	61	2,251	67·20	47	1	28	0·9	11

APPENDIX VIII—*continued.*

GOVERNMENT ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Palamau ...	Palamau, Baldehri and Gogaya,	400	17,350	400	17,350	100	...	74	3,570	20·57	2
Ranchi ...	Barkagarh	89	6,650	85	6,250	93·9	...	44	2,798	42·07	...
Do. ...	Patia	9	746	8	628	84·1	...	1	90	12·06	...
Do. ...	Silum	1	81	1	81	100	...	1	23	28·39	...
Do. ...	Doranda	1	18	1	18	100	...	1	18	100	...
Do. ...	Kadru	1	40	1	40	100	...	1	40	100	...
Do. ...	Hinu	1	2	1	2	100	...	1	2	100	...
Do. ...	Kusai	1	3	1	3	100	...	1	3	100	...
	Total ...	3,103	193,421	2,728	147,699	76·37	5,712	846	43,690	22·58	1,026

APPENDIX VIII—*continued*.

Wards' Estates.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Gaya ...	Maksudpur ...	66	5,225	65	3,868	74	15	64	4,861	93	11
Shahabad ...	Awa	17	974	...	...	...	...	...	...	...	...
Do. ...	Bijaigarh... ...	15	734	...	...	...	...	...	...	...	...
Do. ...	Chougain ...	53	2,951	...	...	...	...	...	...	...	...
Do. ...	Surajpura No. II ...	82	2,325	...	...	...	...	...	...	...	...
Tirhut Division.											
Saran	Majhauli	68	4,769	59	2,385	50	...	59	477	10	...
Do.	Mushrakh... ...	52	5,349	52	2,675	50	...	52	535	10	...
Muzaffarpur ...	Bettiah ... Khamthica...	447	30,160	285	29,472	97·7	...	...	...	...	...
Saran		1,412	200,303	...	...	...	...	...	...	...	...
Champaran ...											
Muzaffarpur ...	Sursand estate No. I...	155	6,700	155	6,700	100	...	54	1,809	27	...
Do. ...	Ditto No. II...	88	3,121	88	3,121	100	...	37	1,250	40·05	...
Do. ...	Mabtha	62	3,553	41	3,033	65·5	55	13	1,995	56·10	4
Darbhanga ...	Narhan ...	195	23,490	195	23,490	100	1,962	27	3,581	15·2	470
Patna ...											
Muzaffarpur ...											
Monghyr ...											
Bhagalpur Division.											
Santal Parganas	Sankara	109	157	109	157	100	...	109	157	100	11
Do. ...	Punasi	69	251	69	251	100	...	69	251	100	...
Bhagalpur ...	Sukhpur	42	4,059	42	4,059	100	...	42	4,059	100	...
Do. ...	Shahpur	27	1,505	27	1,505	100	...	...	...	...	...
Do. ...	Lagma	22	1,920	22	1,920	100	...	...	...	...	...
Do. ...	Sonbarsa	124	15,378	124	15,378	100	...	124	15,378	100	...
Do. ...	Barari	583	24,119	583	24,119	100	...	583	24,119	100	...
Do. ...	Bhupendra Narain Wards' Estate.	98	11,766	79	8,941	95	535	...	...	...	...
Monghyr ...	Bahadurpur ...	57	11,625	57	5,812	50	...	...	...	...	...
Do. ...	Shakarpura ...	5	395	5	395	100	...	...	...	...	...
Orissa Division.											
Cuttack ...	Darpan	348	26,961	199	21,962	81·08	373	137	14,068	52·17	200
Do. ...	Dompara	28	6,952	28	6,952	100	...	26	911	13·1	...
Balasore ...	Kaupur	125	6,335	...	...	...	...	...	...	...	...
Puri	Parikud	65	6,299	60	4,000	63	...	44	2,400	38	45
Sambalpur ...	Malguzari ...	136	2,956	126	2,956	100	...	...	...	...	...
Chota Nagpur Division.											
Manbhum ...	Patkum	262	3,988	262	3,988	100	7	65	2,650	66·4	4
Do. ...	Naro	15	916	15	916	1100	...	5	125	12·7	...
Do. ...	Tinsaya	24	115	24	115	100	...	8	29	25·2	...
Do. ...	Dhadka	30	412	30	412	100	3	14	125	30·3	...
Do. ...	Matha	19	347	19	347	100	...	9	114	32·8	...
Do. ...	Barabhum... ...	273	5,392	265	4,952	91·8	18	...	...	...	...
Hazaribagh ...	Ramgarh	3,672	13,487	...	...	...	...	111	346	2·56	...
Ranchi ...	Armai	126	3,442	87	1,926	55·9	...	15	409	11·8	...
Do..... ...	Biru	185	2,112	97	1,213	57·4	...	40	225	6·6	...
Do.	Kulmunda ...	12	298	7	205	69·4	...	2	30	10	...
Do.	Masmano	18	715	12	497	69·5	...	5	81	11·3	...
Do.	Bajpur	7	438	5	295	67·3	...	4	41	9·3	...

APPENDIX VIII—*concluded.*

WARDS' ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Ranchi ...	Jeria	309	3,304	190	1,901	59·3	...	25	301	9·1	...
Do.	Parba	39	170	21	89	52·3	...	2	30	17·6	...
Do.	Barkibeura ...	9	212	6	175	82·5	...	4	51	24	...
Do.	Jamudag	43	324	30	285	87·9	...	5	81	25	...
Do.	Oreydaru	1	187	1	130	69·5	...	1	25	13·3	...
Do.	Sarjamdih... ...	34	752	25	540	71·8	...	4	95	12·6	...
Do.	Janampiri... ...	22	264	19	200	78·7	...	3	61	23·1	...
Do.	Loro	11	264	7	154	58·3	...	3	38	14·3	...
Do.	Siri	79	722	39	371	51·3	...	5	41	5·6	...
Do.	Tamar	79	1,057	65	895	84·6	...	13	91	8·6	...
Do.	Burhadih	12	398	8	250	62·8	...	4	80	20·1	...
Do.	Hatma	36	657	20	387	58·9	...	5	95	14·1	...
Do.	Hazam	1	172	1	145	84·3	...	1	51	29·6	...
Do.	Tupudana ...	9	372	7	265	71·2	...	5	71	19	...
Do.	Loahatu	10	427	8	290	67·9	...	3	86	20·1	...
Do.... ...	Mardhan	21	397	15	250	62·9	...	4	65	16·3	...
Do.	Redwa	4	165	3	135	81·8	...	3	39	23·6	...
Do.	Barenda	22	678	15	450	66·3	...	3	121	17·8	...
Do.	Chakla	5	303	4	247	81·5	...	2	39	12·8	...
Do.	Guru	3	201	3	184	91·5	...	2	26	12·9	...
Do.	Jonha	27	426	18	250	58·6	...	4	81	19·	...
Do.	Bhargaon	6	203	4	135	66·5	...	3	45	22·1	...
Do.	Harmu	1	71	1	60	84·5	...	1	15	21·1	...
Do.	Chorea	12	434	7	315	72·5	...	2	29	6·6	...
Do.	Pola	5	195	4	150	76·9	...	2	25	12·8	...
Do.	Banapiri	3	248	2	145	58·4	...	2	21	8·4	...
Do.	Jingi	16	198	10	125	63·1	...	3	25	12·6	...
Do.	Narikela	3	101	2	64	63·3	...	1	19	18·8	...
Do.	Badla	7	569	5	321	56·4	...	5	51	8·9	...
Do.	Anabiri	7	224	5	146	65·1	...	3	25	11·1	...
	Total ...	19,029	4,55,683	3,848	1,97,071	43·24	2,972	1,841	81,849	17·96	745

APPENDIX IX.

[*See* Chapter IV, Part I of the Report.]

Result of Inspection of Boundary marks during the year ending the 30th September, 1917.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT ESTATES AND TEMPORARILY-SETTLED ESTATES.										
Patna Division.										
Patna	48	32	804	798	768	...	30	23	Rs. 233-14-0. Met from Khas Mahal Funds.	
Gaya	117	117	1,337	1,123	1,120	...	3	8	Restored by Settlement Department.	
Shahabad	152	43	1,146	1,146	1,143	...	3	1	...	
Tirhut Division.										
Saran	8	8	315	315	315	...	...	...	...	
Champaran	Not reported.			37	30	...	7	...	...	
Darbhanga	2	1	56	56	56	...	...	...	...	
Muzaffarpur	10	8	33	33	23	10	...	...	...	
Bhagalpur Division.										
Bhagalpur	27	26	114	77	29	...	48	...	...	
Purnea	Not reported.			80	74	5	1	1	...	
Santal Parganas ...	8(*a*)	8	4,222	307	301	1	5	5	Restored by village headmen.	
Orissa Division.										
Cuttack	5,682	5,682	9,858	9,858	9,482	...	376	42	Rs. 11-3-0. Realized from occupants of adjoining lands.	
Balasore	Not reported.			7,003	4,048	3,871	...	177	...	...
Puri	501	501	7,175	7,175	7,155	...	20	9	Cost of restoration of 5 marks met from Government Estate improvement grant. The other marks restored at the cost of zamindars.	
Angul and Khondmals ...	1	2	2,723	587	526	...	61	13	Rs. 200 inclusive of the cost of erection of 22 new pillars.	
Sambalpur	1,938(*b*)	1,914	59,807	59,807	59,725	56	26	68		
Chota Nagpur Division.										
Hazaribagh	3	3	1,873	1,873	1,826	47	...	47	Repaired by tenants.	
Ranchi	7	7	275	235	235	...	...	...	...	
Palamau	2	2	17,125	11,397	9,926	1,314	157	1,444	Rs. 40 was spent on the restoration of 26 marks. The remaining marks were restored with the help of tenants.	
Singhbhum	1	1	2,745	2,745	2,407	338	...	35	...	
Total ...	8,507	8,355	116,622	101,697	99,012	1,771	914	1,891	...	
WARDS' ESTATES.										
Tirhut Division.										
Saran	208	208	2,119	1,384	1,306	47	31	...	...	
Champaran	1,692	1,692	Not known.	9,250	6,175	1,972	1,103	5	...	

(*a*) Surveyed under Regulation III of 1872.

(*b*) Surveyed under Section 27 of the Land Revenue Act of Central Provinces.

APPENDIX IX—*concluded.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
				WARDS' ESTATES—*concld.*						
Darbhanga	196	196	1,048	1,048	1,016	1	31	...	...	
Muzaffarpur	25	25	406	168	168	...	...	...	...	
Bhagalpur Division.										
Bhagalpur	726	722	3,450	1,742	1,624	3	115	...	...	
Orissa Division.										
Cuttack	2	2	420	420	416	...	4	4	Rs. 3-9-0. Met from Wards' Estates' Funds.	
Chota Nagpur Division.										
Ranchi	37	37	1,297	1,297	1,297	...	...	...	...	
Manbhum	2	2	1,640	1,640	1,572	68	...	...	...	
Total ...	2,888	2,884	10,380	16,949	13,574	2,091	1,284	9	...	
				ZAMINDARI ESTATES.						
Patna Division.										
Patna	2,578	2,578	5,412	5,412	5,257	...	155	155	Rs. 158-6-6. Met from Boundary Marks Fund.	
Tirhut Division.										
Saran	5,805	5,805	Not known.	13,864	12,425	311	128	...	...	
Champaran	Not reported.			2,644	2,533	7	104	...	...	
Muzaffarpur	3,765	4,275	23,349	20,661	20,183	142	336	69	...	
Bhagalpur Division.									...	
Bhagalpur	2,725	2,725	5,386	4,218	4,054	46	118	18	Rs. 97-1-9. Met from Boundary Marks Fund.	
Monghyr	Not reported.						7	7	...	
Santal Parganas ...	475(*a*)	475	15,098	2,504	2,452	33	19	19	12 pillars were restored at a cost of Rs. 15 which was realized from village headmen. The other pillars were restored by the landlords and tenants.	
Orissa Division.										
Cuttack	Not reported.		1,789	1,789	1,709	...	80	7	Restored by landlords and tenants.	
Chota Nagpur Division.										
Hazaribagh	Not reported.		14,125	4,794	3,143	1,651	...	1,628	Repaired by tenants.	
Ranchi	1	1	6,320	4,058	4,017	37	4	11	...	
Singhbhum	2	2	4,664	4,664	4,638	26	...	...	...	
Total ...	15,351	15,861	76,143	63,608	60,411	2,253	951	1,914		
GRAND TOTAL ...	26,746	27,100	203,145	182,254	172,997	6,115	3,149	3,614		

(*a*) Surveyed under Regulation III of 1872.

N. B.—The figures against "Total" and "Grand Total" in columns 2 to 4 are not complete for want of figures in certain cases.

APPENDIX X.

Statement showing progress of Survey and Settlement work in the Province by districts and divisions up to 30th September, 1917.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September, 1917, (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September, 1917, (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	2,002	119	2,121	1,947	119	2,066	55	...	55	...	...	...
Gaya	4,647	92	4,739	4,611	92	4,703	36	...	36	...	...	...
Shahabad	4,191	211	4,402	4,049	211	4,260	142	...	142	...	..	...
Divisional Total ...	*10,840*	*422*	*11,262*	*10,607*	*422*	*11,029*	*233*	...	*233*	...	...	...
Tirhut Division.												
Saran	2,633	41	2,674	...	...	704	...	...	...	...	...	1,010
Champaran	3,532	3	3,535	3,251	3	3,254	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,308	40	3,348	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	*12,477*	*115*	*12,592*	*9,556*	*3*	*10,323*	*288*	*71*	*359*	...	...	*1,010*
Bhagalpur Division.												
Monghyr	3,742	95	3,837	3,722	95	3,817	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	263	4,994	4,731	14	4,745	...	249	249	...	...	...
Santal Parganas	4,087	1,383	5,470	3,983	1,383	5,366	...	...	...	104	...	104
Divisional Total ...	*16,676*	*1,783*	*18,459*	*14,153*	*1,534*	*17,686*	*420*	*249*	*669*	*104*	...	*104*
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	385	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	609	609	...	223	223	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	...	463	463	...	375	375
Divisional Total ...	*2,238*	*11,526*	*13,764*	*666*	*9,655*	*10,321*	*1,016*	*696*	*2,112*	*153*	*1,875*	*1,331*
Chota Nagpur Division.												
Hazaribagh	6,859	164	7,023	6,852	56	6,908	...	52	52	7	56	63
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau	4,231	613	4,844	2,591	...	2,591	28	319	347	1,612	294	1,906
Manbhum	3,872	275	4,147	934	...	934	...	...	...	2,938	275	3,213
Singhbhum	2,572	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	*24,638*	*3,007*	*27,645*	*19,816*	*1,269*	*21,085*	*265*	*1,113*	*1,378*	*4,557*	*625*	*5,182*
Provincial Total ...	*66,869*	*16,853*	*83,722*	*54,798*	*12,883*	*70,444*	*2,222*	*2,129*	*4,751*	*4,814*	*2,500*	*8,527*

N. B.—The areas shown in this Appendix are approximate.

APPENDIX XI.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets sent for publication.	Year of commencement of operations.	Area surveyed (in square miles). or number of sheets under preparation.		Balance remaining to be surveyed or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
I.—Traverse Surveys.							
District Surveys.							
Palamau	Traverse ...	977	4,719	October, 1912	...	...	...
Manbhum	Ditto	776	4,053	1907-08	610	1,548*	2,505
Miscellaneous Surveys.							
Palamau, Sub-traversing of boundary disputes.	Sub-traverse ...	...	...	Nov. 1916	...	...	...
Manbhum—Topchanchi catchment area.	Demarcation ...	...	...	August, 1917	...	...	...
Ganges Diara (special) ...	Stone embedding ...	...	...	...	...	...	...
Balasore—Mayurbhanj ...	Demarcation ...	...	...	Nov. 1916	...	...	...
,, —Nilgiri ...	Ditto	...	...	Nov. 1916	...	...	...
,, —Keonjhar ...	Ditto	...	...	Do.	...	...	...
Bhagalpur (Ratansar and Bhawanipur).	Traverse, and detail survey with record-writing.	...	...	Dec. 1915	...	...	...
Monghyr—Bhimbandh, Najari and Gaighat.	Traverse and demarcation	...	...	1913-14	...	...	...
,, —Municipality ...	Traverse	...	...	Nov. 1916	...	...	...
,, —Jitpur Sikandar ...	Relaying boundary ...	...	...	April, 1917	...	...	...
Purnea—Estate Shahpur Dharmi ...	Ditto ...	...	...	Feb. 1917	...	...	...
Sambalpur (96 villages) ...	Traverse	...	...	Nov. 1916	...	...	...
,, Banira-Kolabira boundary dispute.	Ditto	...	...	Do.	...	...	...
,, Rairakhol-Jujomura boundary dispute.	Ditto	...	...	Feb. 1917	...	...	...
,, 16″ plots from old traverse tables for revision surveys.	Preparation of 16″ plots ...	...	...	July, 1917	...	...	...
Shahabad—Bansgopal-Chapra ...	Demarcation	...	...	Feb. 1914	...	...	...
,, —Turk Ballia ...	Relaying lost pillars ...	...	...	April 1917	...	...	...
,, —Sugar Chapra ...	Relaying boundary ...	...	...	...	...	...	...
,, —Kalyanpur ...	Ditto ...	...	...	...	...	...	...
Cuttack, Banki Government Estate	Preparation of traverse plots.	...	...	...	...	...	...
II.—Bihar and Orissa Drawing Office.			Sheets— P 63— 7, 8 M 64— 9 D 72— 2, 6, 10, 14, 15 H 72— 2, 10 A 73— 6, 13 N 73— 4 B 78— 6 D 72— 16 G 72— 4, 8 H 72— 7, 13, 14		P 63— 11, 12, 15, 16 M 64— 13, 14 D 72— 3, 4, 7, 8, 12 A 73— 1, 2, 5, 9 O 63— 18 P 63— 5, 9, 10, 13, 14 B 72— 4 C 72— 1		
Imperial Standard Mapping Section.							
Bihar and Orissa	Preparation of standard sheet.	...		...		...	148

XI.

together with the expenditure incurred during the year ending 30th September, 1917.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.								
2,651	...	...	...	...	...	...	...	Completion of record of season 1915-16.
24,177	...	...	39·63†	...	...	...	...	* Includes 998 sq. miles traversed in 1907-08 and 1908-09. † Exclusive of control charges.
1,321								
78								
779								
1,197								
1,646								
835								
39								
482								
1,514								
140								
374								
3,081								
371								
417								
204								
294								
92								
70	...	...	...	...	...	...	...	No work don
40	...	...	...	...	...	...	...	Ditto.
49								

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed, or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Provincial Drawing Section.							
	Compilation of detailed thana maps of thanas—						
Hazaribagh...	Jaridih	.....	32	1915-16	17	24	8
	Barahkatha						
	Ichak						
	Barhi						
	Bagodar						
	Bengabad						
	Birni						
	Jainagar						
	Pirtanr						
	Dhanwar						
	Hazaribagh						
	Gawan						
	Dumri						
	Gidhaur						
Ranchi	Basia	.....	41	1914-15	15	30	11
	Torpa						
	Bano						
	Khunti						
	Tamar						
	Kuru						
	Kolebira						
	Kurdeg						
	Chainpur						
	Raidih						
Patna	Bihar	.....	13	1913-14	2	13	*Nil*
Santal Parganas	Dumka (out-side) ...	.....	29	1915-16	17	29	*Nil*
	Pakaur do. ...						
	Rajmahal do. ...						
	Dumka (Damin) ...						
	Pakaur do. ...						
	Godda do. ...						
	Rajmahal do. ...						
Santal Parganas	Compilation of skeleton district maps.	.....	21	1913-14	1	11	10
Patna	Compilation of district maps.	.....	2	1916-17	2	...	...
Monghyr, Bhagalpur and Purnea...	Compilation of 4" Ganges Diara maps for publication sheets:— K 11 & 15 72 ——— ... ... 80, 81, 82 K 12 & 16 72 ——— ... ... 83 K 15 72 ——— ... 84, 85, 87, & 88 L 16 72 ——— ... ... 86 & 89 O 3 72 ——— 90, 91, 93, 94, 95 & 96 O 4 72 ——— ... ... 92 & 97 O 3 & 7 72 ——— ... 98, 99, 100 & 101 O 4 & 8 72 ——— 102	.....	138	1908-09	28	103	35

XI—*continued.*

together with the expenditure incurred during the year ending 30th September, 1917.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.				Rs.				
8,248(a)	...	...	...	76,466	...	...	...	(a) Includes Rs. 2,816, cost of reproduction.
25(b)	...	...	...	639	...	...	...	(b) Includes Rs. 6, cost of Reproduction.
1,073	...	...	...	14,879				
6,851(c)	...	...	...	34,513	...	...	..	(c) Includes Rs. 282, cost of Reproduction.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office together with

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed, or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Province maps.—							
Jashpur, Raigarh and Gangpur Estates, Purnea, Hazaribagh, Patna, Balasore, Puri, Cuttack and Diagrams, Sketch Maps, etc.	Compilation of miscellaneous maps of extra departmental work.	.....	...	...	77		
Saran	Reproduction of attestation copies of village maps.	.....	2,500	...	2,114	2,114	...
Gaya	Reproduction of final copies of village maps.	.....	9,405	...	2,363	9,405	...
Champaran	Ditto	.....	5,685	...	2,475	4,278	1,407
Sambalpur	Ditto ...	.....	1,308	...	433	433	875
Cuttack	Ditto	.....	1,030	...	811	928	102
Santal Parganas	Ditto	.....	36	..	36	36	...
Manbhum	Ditto	.....	20	...	20	20	...
Saran	Reproduction of village maps for revision purposes.	.....	6,481	...	84	6,481	...
	Reproduction of trijunction mark maps.	.....	77	...	77	77	...
	Reproduction of skeleton thana maps.	.....	13	...	13	13	...
	Reproduction of skeleton district maps.	.....	11	...	1	11	...
	Reproduction of final thana maps.	.....	Not known.	...	75	275	...
	Reproduction of Ganges Diara maps.	.....	138	...	23	104	34
	Reproduction of Survey and Settlement Index maps.	.....	2	...	2	2	...
Gaya	Reproduction of irrigation Scheme Mujimilis.	.....	71	...	63	71	...
Saran	Reproduction of Index Mujimilis and other miscellaneous maps.	.....	25	...	25	25	...
Gaya	Reproduction of village maps of Government and Temporarily settled estates.	.....	176	...	176	176	...
	Reproduction of Skeleton Province maps.	.....	1	...	1	1	...
Shahabad	Reproduction of congregated Ganges Diara Maps.	.....	6	...	6	6	...
	Badars	.....	...	...	...	...	...
	Map Records ...	.....	...	...	...	...	...
	Extra Departmental work	.....	...	...	...	...	...

XI—*concluded.*

the expenditure incurred during the year ending 30th September 1917.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.				Rs.				
963	...	...	...	35,925				
33,896	...	...	...	7,80,978				
158	...	...	...	17,151				
89	...	...	...	948				
*	...	...	...	...				
*	...	...	...	...				
*	...	...	...	...	...	...	...	*Cost of reproduction is included with compilation.
127	...	...	...	2,595				
633	...	...	...	735				
119	...	...	...	314				
523	...	...	...	523				
39†	...	...	...	39	...	...	...	†Includes Rs. 23, cost of compilation.
53	...	...	...	53				
915	...	...	...	55,393				
3,728	...	...	...	79,681				
4,902	...	...	...	35,247				

APPENDIX XII.

Statement showing cost per copy of different classes of maps reproduced in the Bihar and Orissa Drawing Office during the Survey year 1916-17.

Class of work.	Number of copies printed.	Direct charge with stationery.	Cost per copy.	Direct charge with share of General Section and stationery.	Cost per copy.	Direct charge with share of General Section and share of control and stationery.	Cost per copy.
1	2	3	4	5	6	7	8
		Rs.	Re. a. p.	Rs.	Re. a. p.	Rs.	Re. a. p.
1. Preliminary reproduction of maps for attestation purposes.	8,306	922	0 1 9	1,250	0 2 5	1,294	0 2 6
2. Final printing of village maps including two blue prints of each sheet.	475,489	36,252	0 1 2	48,585	0 1 7	50,285	0 1 8
3. Final thana maps	5,250	2,153	0 6 7	2,838	0 8 8	2,937	0 8 11
4. Skeleton thana maps ...	1,300	101	0 1 3	132	0 1 7	137	0 1 8
5. Trijunction marks maps ...	2,260	177	0 1 3	234	0 1 8	242	0 1 9
6. Skeleton district maps ...	100	7	0 1 1	9	0 1 5	9	0 1 5
7. Ganges Diara maps ...	817	231	0 4 6	314	0 6 2	325	0 6 4

B. & O. G. P. (D. F. R.) No. 23—287+1—18-1-1918—S. J. N.

No. 17-214-2.

FROM

H. K. BRISCOE, ESQ., I.C.S.,
SECRETARY TO THE BOARD OF REVENUE, BIHAR AND ORISSA,

To

THE SECRETARY TO THE GOVERNMENT OF
BIHAR AND ORISSA, REVENUE DEPARTMENT.

Dated Ranchi, the 11*th January* 1918.

SIR,

I am directed to forward the Annual Report on the Survey and Settlement Operations under the control of the Director of Land Records and Surveys, Bihar and Orissa, for the year ending the 30th September 1917, by Mr. P. W. Murphy, I.C.S., who was in charge of the combined Survey and Settlement Departments throughout the year.

2. Traverse Survey operations were begun in Manbhum, the only district in the province for which a complete record-of-rights had not yet been taken in hand.

Under 'Settlement', original operations were virtually completed in Gaya and Hazaribagh, and were being carried on in Palamau. Revisional operations continued in progress in Champaran and Saran and the Kolhan Government Estate in Singhbhum.

As noted in paragraph 52 of the Report, the unexpectedly heavy 'case' institutions have prolonged the programme in Champaran, in which district agrarian relations have recently been the subject of special enquiry.

3. *Palamau.*—The congestion of the programme explained in paragraph 35 of the Report is unfortunate, but the Board fully endorses the policy adopted of exhaustive enquiry into the numerous thorny problems of this district, which were also under further discussion during the year between the local officers, the Board and Government.

It is satisfactory to note, however, from paragraph 41 of the Report that the total estimated cost of the district operations still falls short by more than Rs. half a lakh of the figures of Rs. 11,80,040 originally forecasted to the Government of India in the Local Government's letter No. 1228-R(A)-1S-42, dated the 20th June 1912.

4. *Saran.*—The cost rates discussed in paragraphs 49 and 58 of the Report continued high, though the incidence per one hundred plots shows only a slight increase under 'Cadastral' and a welcome fall under 'Attestation'.

The revision of the Behar programme has been recommended to Government in paragraph 5 of the Board's letter No. $\frac{17\text{-}114\text{-}25}{1916}$, dated the 15th June 1917, and the Board has further suggested in paragraph 5 of its letter No. 17-182-3, dated the 8th October 1917, forwarding the Survey and Settlement estimates for the year 1918-19, that, if that proposal be accepted, the opportunity should be taken also to recast the previous estimated cost rates, which experience has shown to be inadequate.

The eulogy, in paragraphs 59 and 60 of the Report, of the management of the Hathwa Estate is welcome reading, and a high testimonial from a Department which has only too often been constrained to criticize landlords unfavourably.

5. *Sambalpur. Paragraphs* 68-69.—Satisfactory progress was made with the preparation of new maps and records against the approaching resettlement of the district, though the Board observes that the check of record writing declined from about 14 per cent of plots in 1915-16 (paragraph 67 of the preceding report) to about 11 per cent in the year under report.

The improvement in the quality of the Patwaris' work has been rewarded by an increase in the number of good conduct allowances, and proposals are under contemplation for a general regrading of the cadre when financial conditions improve.

6. *Paragraphs* 71-72.—There has at last been some improvement in the provincial percentage of mutations to total number of tenancies in Wards, etc., Estates, though the higher figures for Government Estate indicate that there is still considerable room for improvement. The figures of resettlement of vacant tenancies in Wards, etc., Estates show a more satisfactory improvement, and there was also a welcome increase in the provincial percentage of check of rent-rolls by Managers and other superior agency. The Board trusts that these important branches of management will continue to receive proper attention from controlling officers.

7. *Paragraphs* 88 *and* 94.—It may seem *prima facie* a little inequitable that the Local Government should be charged by the Survey of India for copies of public maps actually compiled by the former, but the point does not appear to be of sufficient importance to merit investigation.

Though the price of materials has risen, it is satisfactory to note that the general level of the cost rates of the various maps reproduced by the Provincial Drawing Office shows a tendency to fall.

8. The Board desires to invite the notice of Government to the names of the officers commended in paragraphs 78 and 97 of the Report. The three officers in charge of major settlements, Messrs. Tanner, Bridge and Sweeney, have had difficult, and not always over-pleasant, tasks, in which they have all acquitted themselves, in the Board's opinion, with great credit.

The Board's acknowledgments are also due to Mr. Murphy for his efficient administration of the combined Departments.

I have the honour to be,

SIR,

Your most obedient Servant,

H. K. BRISCOE,

Secretary.

B. & O. G. P. O.—(Board of Rev.) No. 166—322+1—24-1-1918—T. W. L.

No. $\frac{190}{S\text{-}1}$ R.T.

GOVERNMENT OF BIHAR AND ORISSA.

REVENUE DEPARTMENT.

RESOLUTION.

Dated Ranchi, the 13th February 1918.

READ—

The Survey and Settlement Report for the year ending the 30th September 1917, and the remarks recorded on it by the Board of Revenue.

1. Mr. P. W. Murphy, I.C.S., was in charge of the combined Survey and Settlement Departments throughout the year.

2. The work of the Survey Department was mainly confined to the district of Manbhum, where the traverse survey of an area of 610 square miles was completed, the cost rate excluding the share of control being Rs. 39·6 a square mile. In addition 17 miscellaneous petty surveys were undertaken and completed. The outturn of work in the Bihar and Orissa Drawing Office was satisfactory.

3. Survey and Settlement operations extended over the six districts of Gaya, Palamau, Hazaribagh, Saran, Champaran and Singhbhum. Original operations were continued in the first three districts while revisional operations were undertaken in the others. In original operations the area cadastrally surveyed comprised 924 square miles and in revisional operations 816 square miles. Records were prepared for attestation in 1,738 square miles, attested in 2,642 square miles and finally published in 7,495 square miles. The expenditure amounted to Rs. 7,85,302 against Rs. 8,77,964 in the preceding year.

4. The operations in Gaya were practically completed and the programme consisted only of the disposal of cases under sections 105 and 106 of the Bengal Tenancy Act, settlement of rent in the Government and temporarily-settled estates, recess work, final publication and the recovery of costs in ten thanas.

5. In Chota Nagpur, the operations were completed in Hazaribagh, where the programme consisted of the disposal of post publication suits, settlement of fair rents under section 85 of the Chota Nagpur Tenancy Act, final publication of 26 square miles and the recovery of costs by certificate procedure. The final report of the operations in the district is now under the consideration of the Local Government. In Palamau the cadastral survey and preliminary record-writing (both field and recess) of an area of 924 square miles was completed. The settlement programme consisted of the attestation and draft publication of the records of an area of 1,147 square miles, disposal of objections under sections 83 (1) and 111 (6) of the Chota Nagpur Tenancy Act, settlement recess work, final publication of the records of 1,419 square miles, recovery of costs in 1,172 square miles. Agrarian conditions in the area attested are far from satisfactory. Rents are high and the tenants are generally powerless to resist the exactions of the landlords or even to bring them to the notice of the authorities. A general settlement of fair rents is contemplated, and the Lieutenant-Governor in Council trusts that this will provide an opportunity of framing a record securing to the tenant his right in his holding on payment of a reasonable rent. The whole programme of resettlement operations in the Kolhan Government Estate in the district of

Singhbhum was completed with the exception of the recess work of a few villages. The programme consisted of attestation and draft publication of the records of 731 square miles, recess work of the area under attestation, disposal of objections under section 83 (1) of the Chota Nagpur Tenancy Act; final publication of the records of 534 square miles; disposal of post publication suits of the first season's area; and preparation of fair rent schedules.

6. In North Bihar owing to the curtailment of programme during the year under review, in the district of Saran, the operations were confined to three thanas, Siwan, Basantpur and Darauli, containing an area of 839·38 square miles; out of this an area covering 37·77 square miles of *diara* was excluded, after a part of it had been surveyed, leaving 816·60 square miles which were cadastrally surveyed. The number of disputes was large, and worked out to 1·09 per cent. of the plots of which there were over two millions. The percentage was slightly less than in the two previous years, a result which is probably due to the severe punishment inflicted on any Amin or Inspector found to be encouraging disputes.

In Champaran the operations were to have been completed within the year, but this was impossible owing to a large number of keenly contested cases which did not, however, raise any problems which had not been dealt with before. The number of compromises effected under section 109C of the Bengal Tenancy Act in regard to indigo enhancements was satisfactory. Owing to disturbed agrarian conditions in the district a special committee was appointed to report on the subject and its recommendations were accepted by Government.

7. The scheme for the preparation of new maps and records by indigenous agency in the district of Sambalpur continued to work satisfactorily, and maps of 463 villages covering an area of 782 square miles and records of 448 villages were prepared during the year. The outturn was satisfactory. The Patwaris have made considerable progress in drawing, and the maps prepared are exceptionally neat and clean.

8. The maintenance of boundary marks continued to receive due attention, and adequate steps were taken for the restoration of those found missing or damaged.

9. The thanks of the Lieutenant-Governor in Council are due to Mr. Murphy for his efficient administration of the Department. His Honour in Council desires also to acknowledge the good services rendered by Messrs. Tanner, Bridge and Sweeney who were in charge of the major operations and by the other officers whose work has been commended in the Report.

ORDER.—Ordered that a copy of the foregoing Resolution be published in the *Bihar and Orissa Gazette*, and that a copy of it, together with copies of the Report and of the Board's remarks thereon, be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

H. COUPLAND,

Secretary to Government, Bihar and Orissa.

MEMO. No. 191-192-R.T.

Dated , *the 13th February* 1918.

Copy, with a copy of the Report, forwarded to the Surveyor-General of India / Appointment Department for information (with special reference to paragraph 9 of the Resolution).

( ) To Appointment only.

By order of the Lieutenant-Governor in Council,

A. P. MIDDLETON,

Under-Secretary to Government, Bihar and Orissa.

MEMO. No. 1913-R.T.

Dated , *the* 13*th February* 1918.

Copy forwarded to the Secretary to the Board of Revenue, Bihar and Orissa, for the information of the Board.

By order of the Lieutenant-Governor in Council,

A. P. MIDDLETON,

Under-Secretary to Government, Bihar and Orissa.

B. & O. G. P. (Rev.) No. 56—285+5—22-2-1918—A. G. G.

ANNUAL REPORT ON THE SURVEY AND SETTLEMENT OPERATIONS, 1917-18.

CORRECTION SLIP.

PAGE 22, PARAGRAPH 90.—

For "51" sheets *read* "25" sheets.

PAGE XXIV, APPENDIX XI.—

Compilation of detailed thana maps of thanas :—

for "Champaran" *read* "Chauparan".

B. & O. G. P. (D. L. R.) No. 2—290—30-4-1919—S. C. S.

ANNUAL REPORT

ON

SURVEY AND SETTLEMENT OPERATIONS

UNDER THE CONTROL OF

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS

BIHAR AND ORISSA

FOR THE

YEAR ENDING 30TH SEPTEMBER, 1918

PATNA
PRINTED AT THE BIHAR AND ORISSA GOVERNMENT PRESS
1919

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[Maximum limit—30 pages.]

REPORT.

OF THE

DIRECTOR OF THE DEPARTMENT OF LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

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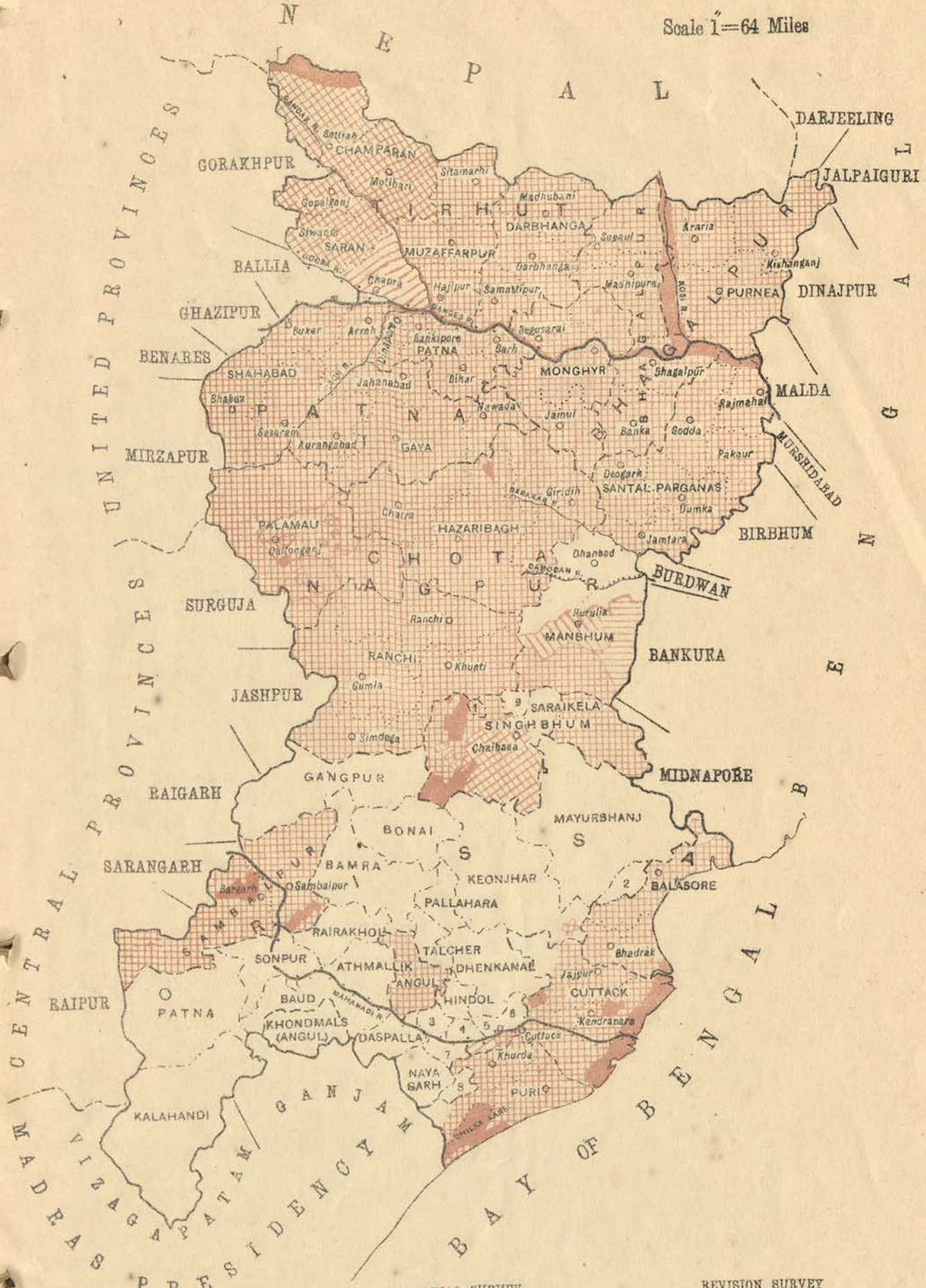
,, ,, ,, in Survey, Traverse and Cadastral.

SURVEY MAP OF THE PROVINCE OF BIHAR & ORISSA

Scale 1″=64 Miles



REFERENCE TO NUMBERS

1 KARAIKELA
2 NILGIRI
3 NARSINGHPUR
4 BARAMBA
5 TIGIRIA
6 ATHGARH
7 KHANDPARA
8 RANPUR
9 KHARSAWAN

ORIGINAL SURVEY

Area topographically Surveyed
Area Traverse Surveyed during 1917-18
Area Traverse Surveyed previously
Area Cadastrally Surveyed during 1917-18
Area Cadastrally Surveyed previously

REVISION SURVEY

Area Cadastrally Surveyed during 1917-18
Area Cadastrally Surveyed previously

Zincographed in the B & O.D.O.

SETTLEMENT MAP OF THE PROVINCE OF BIHAR & ORISSA

Scale 1″=64 Miles

REFERENCE TO NUMBERS

1 KARAIKELA
2 NILGIRI
3 NARSINGHPUR
4 BARAMBA
5 TIGIRIA
6 ATHGARH
7 KHANDPARA
8 RANPUR
9 KHARSAWAN

ORIGINAL SETTLEMENT	REVISION SETTLEMENT
Area in progress during 1917-18	Area in progress during 1917-18
Area finally published during 1917-18	Area finally published during 1917-18
Area finally published previously	Area finally published previously
Area topographically Surveyed	

Zincographed in the B & O.D.O.

DEPARTMENT OE LAND RECORDS AND SURVEYS, BIHAR AND ORISSA.

No. 44.

FROM

P. W. MURPHY, Esq., I.C.S.,
DIRECTOR OF LAND RECORDS AND SURVEYS,
BIHAR AND ORISSA,

To

THE SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA.

Dated Patna, the 6th January, 1919.

SIR,

I HAVE the honour to submit the following report on the Survey and Settlement operations conducted under the supervision of this Department during the year ending the 30th September, 1918.

PART I. CADASTRAL SURVEY AND SETTLEMENT.

CHAPTER I.—GENERAL SUMMARY AND GENERAL REMARKS.

Extent of the year's operation: Original and revisional.

2. Survey and Settlement operations were in progress during the year in seven districts of the Province. In original operations there was no programme for cadastral survey which had all been completed. In revisional operations the area cadastrally surveyed comprised 1,019 square miles. Preliminary records were written for the same area. Records were prepared for attestation in 1,021 square miles, attested in 1,777 square miles and finally published in 2,638 square miles. The rents of 1,00,100 tenants were settled. The expenditure of the year amounted to Rs. 5,94,515.

3. In Bihar the area for which revised records have been finally published up-to-date is 4,018 square miles. The revision operations which began in Champaran in 1913 are now practically complete. The Saran revision operations are in progress.

In Chota Nagpur Settlement operations are going on in Palamau. Traverse survey was begun in Manbhum (excluding Parganas Barahabhum and Patkum) last year and detailed survey and record-writing will begin in November next. The area for which records have not yet been finally published in these districts is 4,183 square miles.

In Orissa the re-settlement operations of the Banki Government estate in Cuttack were begun during the year under report.

Future programme.

4. The traverse survey of the district of Manbhum (excluding parganas Barahabhum and Patkum) commenced in the year 1916-17 and will be completed by 1920-21. The cadastral survey and preliminary record-writing will begin this field season. The survey and record-writing of the Banki Government estate in the district of Cuttack began during the year under report and will continue in 1918-19.

The revision settlement of the Koderma Government estate in the district of Hazaribagh was to begin in November, 1918, but has been postponed till 1921-22 under the Local Government Order No. $\frac{6051}{S-17}$R., dated the 16th September, 1918.

The revision operations in the district of Muzaffarpur have been postponed for two years under the orders of the Government of India in their letter No. 407-105-2, dated the 14th May, 1918. According to the 20 years' programme of the Survey and Settlement operations of this Province, the revision operations in the Angul Government Estate were to commence in 1919-20 but it has been proposed by the local officers to begin them in 1920-21, when the revision

settlement in Orissa and in Sambalpur will also be taken up. According to the original programme the cadastral survey and preliminary record-writing in the district of Manbhum was to be completed in 1918-19 and the revision of the records of the Chota Nagpur Division was to commence with the Porahat Estate in 1919-20. According to the revised programme of Manbhum submitted to Board with my letter No. 3182, dated the 7th September, 1918, the cadastral survey and preliminary record-writing of the district will be completed in 1921-22 and the revision operations of the Chota Nagpur Division will commence in 1922-23.

Settlement Staff.

5. The largest number of Settlement Officers employed during the year was four against three of the last year. Three of them were Civilian officers in charge of the major settlements in South Bihar, North Bihar and Chota Nagpur and one was a Deputy Collector in charge of the revision settlement operations of the Banki Government estate. The largest number of Assistant Settlement Officers employed during the year was 82 against 80 in the previous year, of whom 57 were employed in North Bihar, 2 in South Bihar and 23 in Chota Nagpur. This number comprised 3 Civilians, 21 Deputy Collectors, 8 Munsifs, 43 Sub-Deputy Collectors and 7 non-gazetted Assistant Settlement Officers. Of the 7 non-gazetted Assistant Settlement Officers one was subsequently promoted to the rank of a Sub-Deputy Collector.

Training of Junior Civilian Officers.

6. Mr. N. P. Thadani was the only Junior Civilian Officer who was deputed to North Bihar to undergo training in Survey and Settlement during the year under report. He is reported to have acquired a practical knowledge of the vernacular and of rural conditions in the five and half months for which period he was deputed. His services were of much assistance to this Department. He was placed temporarily in charge of a cadastral circle and is reported to have controlled his staff and organized the work efficiently.

Training of Munsifs.

7. Four Munsifs deputed in October, 1918, completed the prescribed term of eighteen months' training.

Training of District Kanungos.

8. Three district Kanungos were trained in Survey and Settlement work during the year.

Final Reports.

9. The final report of the Survey and Settlement operations in the district of Gaya is passing through the press, and that of the Survey and Settlement operations in the district of Shahabad has been printed off and the review is being written. The review on the Barahabhum and Patkum report is passing through the press and will shortly be submitted with the report.

Maintenance of Thana Lists and Maps.

10. During the year 6 proposals for alteration in thana and police station jurisdictions were received for examination. The jurisdiction notifications issued were eight in number. Necessary action was taken where required for the correction of the thana lists and maps.

Utilization of Land Records.

11. The extracts from the annual reports received from the District Officers indicate that the subject of the utilization of Survey and Settlement records continued to receive attention as in previous years. In criminal cases concerning land, in civil suits for arrears of rent and possession, in partition and land acquisition proceedings, in certificate cases, in preparing sketches of the scenes of crime, in making chaukidari assessments, and in almost every branch of revenue work, the records, it is reported, have been constantly consulted and utilized.

CHAPTER II—PERMANENTLY-SETTLED ESTATES.

SOUTH BIHAR SETTLEMENT.

GAYA DISTRICT.

(*See* Appendices I to IV.)

12. *Programme.*—The programe consisted of the recess work of village Goharpur of Thana Tikari, the disposal of sections 105 and 106 cases, recovery

of costs, making over records to the Collector and winding up of the Gaya Settlement operations.

13. *Staff.*—Mr. E. L. Tanner, I.C.S., was the Settlement Officer from 8th October, 1917, to 20th February, 1918, on which date he made over charge. Babu Sudhanshu Bhushan Mitra was in charge from 1st October, 1917, to 7th October, 1917, and again from 21st February, 1918, to 6th March, 1918, reverting to general duty in the forenoon of the 7th March, 1918. Babu Sukhdev Narayan was in subordinate charge for 5 months and 4 days. He made over charge in the afternoon of the 8th March, 1918, and proceeded on leave. Babu Sudhanshu Bhushan Mitra disposed of the sections 105 and 106 cases, did certificate work, supervised the recess work of the Monghyr Municipal Survey and the winding up of the South Bihar operations. Babu Sukhdev Narayan supervised the making over of records to the Collector, sorted the old English correspondence and was in charge of noting work both in Gaya and Shahabad.

14. *Recess work.*—Only one village, viz., Goharpur remained to be finally published and this was done on 9th January, 1918. The reasons why it could not be done earlier are noted in paragraph 15 of the annual report for the year ending 30th September, 1917.

15. *Cases under Section* 105.—Nineteen cases (284 tenancies) were disposed of during the year under review. They were mostly cases of the Maksudpur Wards' Estate and presented no special difficulties. The rents of 221 tenants were enhanced, 34 tenants had their existing rents settled as fair and in 18 cases the rents were reduced. Fair rents were settled in 11 *kabil lagan* cases the average being Rs. 3-3 per acre.

16. *Cases under Section* 106.—Forty-nine suits were disposed of. They were mostly cases of the Maksudpur Wards' Estate and presented no features of special interest. The plaintiff's claim was allowed in 40 and disallowed in 9 cases.

17. *Cases under Section* 108*A*.—Only one application was made and the correction prayed for was allowed. In an application under section 108A, heard in the previous year, the Settlement Officer had rejected the application and refused to make any alteration in the record-of-rights. The dispute related to the boundary between village Harnahi in Gaya and Pathel in Hazaribagh. In refusing the application the Settlement Officer followed the decision given by the Settlement Officer of Hazaribagh in 1914 and adhered to the boundary of Harnahi as surveyed and shown in the maps and records of the Tikari Settlement of 1894-97. On appeal the order of the Settlement Officer of Gaya refusing to exercise his power of revision under section 108A was set aside by the Special Judge who directed that the maps and records should be corrected in accordance with a recent decision of the Civil Court modifying the 1894-97 boundary. This decision raises two points of interest. The first is whether a Special Judge has, by virtue of his appellate powers, authority to revise the record-of-right in cases where the Settlement Officer has refused to do so under section 108A. The second is whether the Settlement Officer on being moved to do so is bound to revise the record under section 108A in accordance with Civil Court decrees passed after final publication of the record. As regards the first it seems improbable that the legislature intended to confer on the Special Judge the general powers of revision given to the Settlement Officer by section 108A, or contemplated an appeal to the Special Judge against a refusal by the Settlement Officer to exercise these powers. As regards the second it would appear that the provisions of section 108A were framed with the object of correcting *bona fide* mistakes and were not intended to be applied for the purpose of altering entries deliberately made after hearing both parties to a dispute. To apply them for the latter purpose has the effect of lengthening the time and cheapening the procedure necessary to procure the alteration of disputed entries by providing an alternative to a suit under section 106.

18. *Recovery.*—Out of a demand of Rs. 37,402 a sum of Rs. 15,497 was realized by Certificate procedure and Rs. 21,569 without it. Seventy-three cases covering a demand of Rs. 336 were made over to the Collector for realization. Of this a sum of Rs. 236 has been realized and it is hoped that the balance will be recovered during the current year.

19. *Costs.*—The direct cost incurred during the year was Rs. 22,962. The indirect cost amounted to Rs. 2,857 including Rs. 614 as cost of Director of Land Records and Surveys' control. Receipts amounted to Rs. 9,474 in cash and Rs. 3,495 in stamps. The net cost was therefore Rs. 12,850.

20. *Monghyr Municipal Survey.*—Recess work was completed and the work on maps finished by the end of December, 1917, when the Cadastral staff was discharged. The maps and records were made over to the Municipality on the 18th February and the usual notification was issued in the local Gazette.

CHOTA NAGPUR SETTLEMENT.

21. *Staff and extent of Operations.*—Survey and Settlement operations were in progress in the districts of Singhbhum and Palamau throughout the year and for only one month in Hazaribagh. Mr. T. W. Bridge, I.C.S., was Settlement Officer during this period except for a short period of one month during which Mr. A. D. Tuckey, I.C.S., officiated. Throughout the year Mr. Tuckey was in charge of the Kolhan Settlement operations and of the Palamau Settlement in field, after which he reverted to the general line for a short period of 2 months and 7 days. The number of Assistant Settlement Officers employed during the field season and recess was 23 and 15 respectively. The staff during the field season included 2 Civilians, 8 Deputy Collectors, 3 Munsifs and 11 Sub-Deputy Collectors.

HAZARIBAGH DISTRICT.

Area 6,908 square miles; 7,007 villages; 337,097 holdings; 5,407,472 plots.

22. *Programme.*—The programme of the year consisted of:—

(*i*) Disposal of cases under section 85 (2) (*ii*) of the Chota Nagpur Tenancy Act.

(*ii*) Recovery of costs by Certificate procedure.

23. *Fair rent Settlement.*—Fair rent Settlement of 22 villages of the Hata Mahal Government Estate and of village Kendua in Thana Chowparan has been completed.

24. *Supplementary Final Report.*—A supplement to Chapter XI of the final report on the Survey and Settlement operations in the district, relating to settlement of fair rent, has been written by the Settlement Officer and is now passing through the press.

25. *Recovery of costs.*—The balance outstanding at the end of the previous year was Rs. 585 of which Rs. 468 was collected during the year leaving a balance of Rs. 117. This amount has since been written off.

26. *Total cost of operations.*—The total cost of all operations (including Traverse work) in the district up to 30th September, 1918, is Rs. 17,14,865. Deducting one-fourth share payable from Imperial revenues, the sum to be recovered from landlords and tenants is Rs. 12,86,149. Against this a sum of Rs. 13,07,272 has already been realized. This gives a surplus amount of Rs. 21,123 of which Rs. 13,812 has been assigned for the up-keep of boundary marks.

PALAMAU DISTRICT.

SETTLEMENT.

27. *Programme.*—The programme of the year consisted of (*i*) attestation and draft publication of 969 square miles, (*ii*) disposal of objections under sections 83 (*i*) and 111 (6) of the Chota Nagpur Tenancy Act in the area under attestation; and of cases pending from the previous year, (*iii*) Settlement recess work of the attested area, (*iv*) final publication of the records of 1,142 square miles attested in 1916-17, (*v*) recovery of costs in the area of 1,419 square miles the records of which were attested in 1915-16, (*vi*) disposal of cases under section 87 of the Chota Nagpur Tenancy Act, (*vii*) computation of cost of the settlement operations of 1,147 square miles, the 3rd season's area.

The whole programme was completed before the end of September, with the exception of the case work under section 87 and of the recess work of the attested area, which will be completed by the end of December.

The attestation work again presented considerable difficulties. It was not found possible to finish it in time, the main reasons for the delay being the general prevalence of illegal enhancements of rent, non-granting of rent receipts, frequent dispossessions of raiyats and disputes between petty co-sharer landlords. The large number of crop-cutting experiments made this year also took up a good deal of the time of the Assistant Settlement Officers.

28. *Status.*—The number of raiyats having *khuntkatti* rights was 20 or 0·04 per cent. of the total number; occupancy raiyats 7,254; settled raiyats 42,334; and non-occupancy raiyats 397 or 0·75 per cent. of the total.

29. *Rent.*—The average rates of rent per acre were found to be as follows:—

Thana.	Khuntkatti raiyats	Settled raiyats.	Occupancy raiyats.
1	2	3	4
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Patan	...	1 11 8	1 11 11
Daltonganj	0 7 8	1 6 0	1 9 4

Produce rents were not common in this year's area. The cash rents were mainly lump rentals, and regular rates of rent were rare. The *Pariadari* and *Kanwadari* systems of rent were, however, met with frequently in the more jungly parts of the area.

30. *Objections under sections* 83 (1) *and* 111 (6) *of the Chota Nagpur Tenancy Act.*—There were 8,144 and 39 objections under the two sections respectively. Adding 2,093 and 10 cases pending from the previous year the total number of objections to be dealt with were 10,237 and 49, out of which 10,218 cases under section 83(1) and all the cases under section 111(6) were disposed of during the year.

31. *Landlords' privileged land.*—The total area recorded as landlords' privileged land in the area attested amounted to 465·57 acres of rice-land and 555·85 acres of up land or 0·5 per cent of the total cultivated area.

32. *Agrarian Relations.*—The economic condition of the general body of the tenantry in the area under attestation during the year is no better than in the remainder of the district. The extent to which the *kamia* system revails (12 per cent of the total working agricultural population consists of *kamias* and their dependents) is a sufficient indication of the poverty of the average worker which compels him in time of stress to sacrifice his only asset, his personal liberty. Mr. Bridge has recently submitted a full report on the *kamia* system, and it is not necessary to do more here than advert to a few of its most salient features. Among these is the fact that the so-called wage received by the *kamia* is merely an inadequate dole of food. It is only paid when a full day's work is rendered and no obligation to feed the *kamia* is recognized by a *kamia*-owner on days of unemployment. Employment is mainly agricultural and is by no means continuous. The *kamia's* family averages between four and five in number. Those members who do not work receive no dole of food. The *kamia* himself is rarely entitled to more than one standard seer of rice for a full day's work and he has no remedy if his owner curtails the measure. It is obvious that he cannot feed and clothe his family sufficiently on such a pittance. As a rule, no provision is made for the *kamia* by his owner in sickness, old age or times of scarcity. The majority of the tenantry are very little above the *kamia* and the transition to bondage is for them an easy one.

The *kamia* works in lieu of interest on a small debt, the average amount of which is under Rs. 20, sometimes contracted by himself, sometimes inherited;

he never receives any money and in ordinary practice he can never emancipate himself. Recently in a criminal case it was argued by a pleader of Daltonganj before the officiating Judicial Commissioner that a *kamia's* contention that he possessed a couple of annas and a few seers of grain must be false, for as every one knew, argued the pleader, a *kamia never* has any reserve of grain and a *kamia never* has any money at all.

As regards the ordinary cultivators, figures have been tabulated to show the total area of *raiyati* cultivation of the district and also the numbers of the population which it supports. These figures show that the average Palamau peasant cultivator exists in a condition of extreme indigence. There is plenty of unoccupied land in the district which would repay cultivation but the severity of the rents which are imposed and the modern tendency of the landlords (including even those under the protection of the Encumbered Estates Department) to ride rough-shod over all rights of occupancy, have effectually throttled the pioneer instincts of the peasantry.

In these circumstances the most imperative needs of the district are the official protection of occupancy rights, the encouragement of new cultivation and the *enforcement* of reasonable rates of rent in every estate. A few concrete instances will best illustrate the present conditions.

Village Kachan belongs to the Chainpur zemindar who is not, I believe, inspired by any wish to be oppressive but does not exert much active influence in the administration of his own estate.

Up to 1306 (about 1899) it was held by certain *khorposhdars* and under them in hereditary lease by a family of aboriginal *manjhis*. The total rent of the village was Rs. 251, including road cess. This amount covered the lands held by the hereditary lease-holders as well as those of their *raiyats*. In fact it covered the entire village. On the death of the *khorposhdar* the Chainpur landlord resumed the village. His agents immediately (and wrongfully) expelled the hereditary lease-holders and took direct possession of all their cultivation. Two years afterwards they raised the rate of rent per *paria* (a local unit of measure) in the case of *all* the *raiyats* by 25 per cent.; and at the same time increased the nominal area of each holding by 50 per cent., that is to say a piece of land which was previously regarded and assessed as one *paria*, was thereafter treated as one and a half and assessed accordingly at the enhanced rate. Road cess which had been previously included in the *paria* rent was now superimposed at 1 anna in the rupee, i.e., at double the legal rate. By these means a rent of Rs. 10 became 18-12-0 *plus* 1-3-0 as road cess, so that a general enhancement of 100 per cent. was imposed upon the entire village.

It is not even now alleged by the landlord that there was any extension of cultivation to justify the increase in nominal areas. Each *paria* was re-estimated as $1\frac{1}{2}$ *parias* not because it was believed that there had been an unnoticed increase in the area of every holding owing to gradual reclamations of jungle, but because it was desired to increase the rent-roll. It is in fact the case of both landlord and tenants that there has been no increase in rice cultivation in this village in living memory. Both agree that rice-land is the basis of the *paria*. It follows that there cannot rightly be an increase in the number of *parias* without new reclamation of rice-land.

Not content with this great and arbitrary addition to the rent-roll the proprietor admittedly imposed a separate assessment in 1317 on all *mahua* trees, which had previously been included in the *paria* rents; and he accompanied this new exaction by a worse one, for he cut out some of the *pariadari* lands from the holdings to which they belonged and assessed them to additional rents which he called *uttakar*.

In addition to all this he has recently imposed *karcharai* (a grazing fee) upon all *raiyats* although he formerly only got it from professional *gowalas*, and he now claims that all his tenants must keep their cattle for the night on his fields at certain times of the year, so that his own cultivation may benefit by the manure. The final result of his operations is that instead of a receipt of Rs. 251, for the entire village as in 1306 (1) he now claims Rs. 836-2 as rent from his *raiyats* for their fields, (2) he has taken possession of many fields

himself, and (3) he demands a separate rent for the *mahua* trees; nevertheless he admits that rice-land (the basis of *pariadari* assessment) has not been increased in area.

It is not perhaps surprising that in these circumstances the *raiyats* should have proved unable to meet the demand and that the landlord's own account books show enormous arrears and remissions; but it is rather surprising that his agent should have the assurance to explain away all these as due entirely to the drunken extravagance of all the *raiyats* (of every caste).

It must not be thought that the Chainpur estate is exceptional in its severity. Here is a note written early in the year about village Pachlewa in Ladi estate.

"This is a *khuntkatti* village and was held up to 1322 (1915) by the descendants of the original clearers of the jungle. In that year (during the present settlement) the tenure of the *khuntkattidars*, though legally permanent, was broken by the landlord, and at the same time the *paria* system under which the *raiyats* had always enjoyed their holdings in the village was abolished. Then, as the *malik's* agents themselves state, a new system of *uttakar* rents was introduced after a rough measurement, but no enquiry was made as to what rents had previously been paid by the *raiyats* to the *khuntkattidars*. In other words the legally payable rents were entirely disregarded.

The result was a serious enhancement of rents. The grazing fee known as *karcharai* was also increased as the *malik's* witnesses have admitted. A claim for *rakhat* (landlord's reserved forest) was also made but was not substantiated, although the landlord was given very ample opportunities of doing so. In another village where a similar *rakhat* claim was partly allowed and partly rejected, the landlord showed his contempt for the settlement decision by impounding a very large number of cattle on the ground that a few of them (a mere fraction of the whole numbers) had entered the area which he had unsuccessfully claimed as *rakhat*. In some cases he fined the *raiyats* instead of impounding their cattle, an entirely illegal procedure. When I asked him about this, he stated that his servants had acted without his knowledge but he would *not* admit this publicly at the settlement camp or make any amends to the injured tenants.

Village Babadumbi is a clear example of this landlord's methods. His own account books show that he has enhanced the village rental from Rs. 149 to Rs. 629 in the last 8 years. The village is a small one in an old and fully cultivated area and this increase of rent has not been accompanied by an increase in cultivation. The rent claimed comes to about 60 per cent. of the value of the gross produce. There have been many dispossessions and abandonments.

In Srirampur the same landlord made a new assessment in 1321, and declined to produce his earlier papers. Houses were assessed to rent separately from their holdings. Holdings were put up to auction. The attested rents now represent more than half the value of the gross produce. All the holdings are too small to supply sufficient food for their occupants. The village has no waste land. That the enhancements made were enormous may be judged from the case of Kurmi Dusadh whose rent was increased from Rs. 32 to Rs. 103 in recent years.

In villages Lokeya and Pathra another landlord has waged a campaign in the courts for many years against his tenants. His superior knowledge and cleverness has completely succeeded, and in spite of many appeals to the authorities the tenantry have been deprived of virtually all their rights and reduced to great misery. The contention now put forward by the landlord is that the raiyats' rights are gone beyond recall and that the settlement cannot alter this thoroughly accomplished fact. This argument had to be admitted. His latest manœuvre has been to sue his tenants in the criminal courts for removing to their threshing floors the crops of lands held on produce rent. Inasmuch as he had made a practice for years of suing for the value of the crops in arrears in the hope of breaking the *raiyats* with the burden of accumulated debt (a hope successfully realized in many cases), it might have been expected that his complaint would fail at the outset; but I believe that

it did not, and I learn from the Senior Deputy Magistrate that this kind of prosecution has become popular recently. The instances which I have given above are not isolated or extreme examples. The landlords concerned are among the most honoured in the district. The whole of the poorer classes live in extreme need, and agrarian conditions in the district are utterly miserable. Most of the cultivating classes depend largely for existence on jungle produce. They eat even many of the malnutritious roots and fruits, and they sell grass and firewood. The latter privilege has been taken from them by the Settlement in the interests of the jungles and of the landlords. It is for consideration when dealing with projects for jungle preservation by further restriction of the user of the raiyats, whether an effort already apparently foredoomed to failure should be allowed to obstruct the mitigation of human misery.

The report on the Chainpur jungles recently submitted by the Settlement Officer shows the attitude of the owner of the most important jungles in the last year's area, and exemplifies that of the rest. The Chainpur proprietor has openly and unashamedly expressed his resolve to sacrifice his jungles for ready cash on the first possible opportunity. Such is the attitude of all Palamau landlords, and since their attitude is such, it is not too much to say that any attempt to preserve their jungles without restraining their action is foredoomed to certain failure.

Two cases come to mind which indicate the contempt which the landlord class entertain for the existing land laws and the consequent necessity for a vigorous administration of them. The story of village Kareaha, a few miles from Daltonganj, as told by the villagers and independently by men of neighbouring hamlets is as follows :—

The landlord sought to impose an enhancement of rent on his tenants. They objected and so he invited some Babhans, who were notorious bullies, to take a lease of the village for 3 years and bring the *raiyats* to reason. This they did with complete success. At the end of the 3 years the *raiyats* returned to their old landlord and said they would agree to any enhancement if he would only free them from the Babhans. He agreed, but the Babhans declined to give up the village when their lease expired. There was a fight. One of the landlord's men was killed and one was wounded by the Babhans; and the *raiyats* were dispossessed from their lands. The Babhans then prosecuted their victims and got some of them criminally punished. They retained the lands both of landlord and tenants. This almost incredible story has been verified both by Mr. Bridge and Mr. Tuckey.

A certain Narsing Lyal Singh has for years claimed an estate on the ground of primogeniture. The High Court has repeatedly decided against him both on the score of possession and the claim of primogeniture, and has finally ordered that the latter claim be not again entertained in any court, but yet he is still undoubtedly in actual possession, and one of the claimants whom he excludes is the Manager of the Encumbered Estates.

As in areas previously dealt with a great deal of hardship is occasioned to the *raiyats* by partition cases to which they are not even parties. This result is largely the fault of the partition procedure which allows the distribution of one *raiyat's* holdings into the shares of many landlords, but gives no authority to apportion the rent. The result is that the *raiyat* is usually ignored by the Court and suffers either dispossession or a big increase of rent from the various landlords. Bajalpur and Kamal Kiria are cases in point. In the former case the village had been some years ago under Encumbered Estates' management, and the books of the department proved the previous possession of the tenants dispossessed by the partition.

I have remarked above on the new tendency of landlords to allow tenants to remove crops from fields held on produce rent and then to prosecute them for alleged criminal intention in so doing. The Deputy Commissioner has recently brought to notice another innovation which illustrates the helplessness of the tenantry and the use of legal formalities by the landlord to secure illegal and unfair advantages. I refer to the recent registration of numerous documents by which tenants bind themselves to pay higher rents than those

which have been recorded by the Settlement department. The finally published rents are not so alterable under section 94; and the agreements are so obviously against the interest of the *raiyats* that they would not be executed without undue pressure. Any attempt to collect rents in accordance with these documents is punishable under Section 63 of the Chota Nagpur Tenancy Act. No doubt if the Deputy Commissioner makes this clear to the tenants concerned, he will be able to cheek this new abuse.

Very few landlords ever grant rent receipts, and those who do so often omit to fill in details which are required by law, and are necessary for the protection of the tenants. The necessity for insisting on full and correct rent receipts and the dangers arising from incomplete and incorrect ones were strongly emphasized some years ago by two Deputy Commissioners, Messrs. Hignell and Lyall. A very large number of cases of offences connected with rent receipts have been reported to the Deputy Commissioner during the year. The result of these cases are not at present known.

In a certain number of cases raiyats who were dispossessed were advised after very careful investigation to apply to the Deputy Cmomissioner under section 71 for restoration of their holdings. The result has been very disappointing. In dealing with these cases the Deputy Commissioner has taken a view of the law which is completely opposed to that hitherto adopted by the Revenue Courts and the Settlement Department in Chota Nagpur. He believes that despite the explanation to section 76 of the Tenancy Act occupancy rights can never be acquired by less than twelve years' occupation and he consequently refuses to restore to their holdings dispossessed *raiyats* whose term of occupation, prior to their dispossession, has been less than this period. In some instances where this principle was applied by the Deputy Commissioner it appears to have escaped his notice that the raiyats concerned had been recorded as settled *raiyats* of the village and were therefore by the provisions of Section 19 of the Tenancy Act entitled to occupancy rights independently of local custom or of the length of their occupation. Apart from this mistake, however, the decision of the Deputy Commissioner is one that if followed will have important consequences. By raising the belief that the large body of tenants shown in the record-of-rights as *dakhilkar* will have, if illegally ejected, no right to sue for restoration to their lands under section 71, it will encourage landlords to continue their present practice of illegally dispossessing raiyats of their holdings, to ignore the entries in the record-of-rights and to take every possible precaution, legal and illegal, to prevent any tenant from acquiring statutory occupancy rights by remaining in possession of his holding for twelve years. In view of the imperative necessity, if the economic condition of the tenants is to be improved, of introducing in the district security of tenure at a reasonable rate of rent and of encouraging extension of cultivation, it is to be hoped that the Deputy Commissioner's interpretation of the law is incorrect.

33. *Recovery and Computation of cost.*—The total demand for the area under recovery was Rs. 2,15,630 and the balance outstanding at the end of the previous year was Rs. 30,051 making a total of Rs. 2,45,681 of which Rs. 2,03,674 was collected during the year leaving a balance of Rs 42,007, which is due from the big landlords who have been allowed time to pay the costs.

Computation of costs recoverable from the landlords and tenants of the third year's area commenced in September of this year and will be completed by the end of November.

The total net cost (including that of traverse work) incurred in the district up to 30th September, 1918, is Rs. 10,52,529. To complete the operations will, it is estimated, cost an additional sum of Rs. 1,44,000. In addition to this a sum of Rs. 74,095 on account of the construction of Settlement buildings and of the Settlement Officer's residence will have to be added to the total expenditure, and Rs. 55,000, the estimated value of the buildings at the close of the operations, deducted from the expenditure. The estimated total cost thus comes to Rs. 12,15,624. Deducting one-fourth share payable by Government and an additional one-tenth share of the balance payable by Government

in consideration of the poverty of the district, the sum to be recovered from the landlords and tenants comes to Rs. 8,20,546 *plus* Rs. 17,426 for the maintenance of boundary marks. The total cost recoverable is, therefore, Rs. 8,37,972 out of which a sum of Rs. 3,54,145 has already been recovered and the balance will be recovered in due course.

CHAPTER III.—REVISION SETTLEMENT AND MAINTENANCE OF LAND RECORDS.

North Bihar Revision Settlement.

34. *Staff and extent of operations.*—Mr. J. A. Sweeney, I.C.S., was the Settlement Officer until the 4th of April when he was relieved by Mr. J. A. Saunders, I.C.S. During the field season Mr. A. R. Toplis, I.C.S., was in charge of map revision and preliminary record-writing in addition to three attestation camps. In the middle of February when the greater part of the Cadastral field work was finished he relieved Babu Phanindra Nath Mukharji, who with Mr. J. A. Saunders, I.C.S, had been in charge of the remaining attestation camps, and Babu Phanindra Nath Mukharji returned to case work. The number of Assistant Settlement Officers employed in the field season and in recess respectively was fifty-eight and twenty-eight. Of these fifteen were employed in case work during the whole of the year, and towards the end the number was increased to nineteen. Of the Assistant Settlement Officers who worked during the field season four were civilians (including one junior civilian officer on training), ten were Deputy Collectors, thirty-three Sub-Deputy Collectors, five Munsifs, and seven non-gazetted Assistant Settlement Officers. During the year one of the last mentioned was appointed to the Subordinate Executive Service and a Sub-Deputy Collector was promoted to the Provincial Executive Service.

The operations comprised preliminary record-writing, attestation, final publication and the beginning of case work under sections 40, 105 and 106 of the Bengal Tenancy Act in the Saran district and recovery of settlement costs, the completion of case work and revision of rents under the Champaran Agrarian Act in the district of Champaran.

CADASTRAL—DISTRICT SARAN.

Map Revision and Preliminary Record-writing.

35. *Programme.*—The year's programme included the whole of the Sadr Subdivision, an area of 1,002 square miles comprised in thanas Chapra, Manjhi, Parsa, Mashrak and Sonpur. Out of this *diara* villages covering an area of 103 square miles were excluded from the operations. The area cadastrally surveyed was, therefore, 899 square miles which was divided into ten circles and was found to contain 2,367,311 plots. The field season ended about the end of March.

36. *Staff.*—Five of the Assistant Settlement Officers and all the Kanungos had previous experience of the work and, with one exception, worked well. The subordinate staff was efficient.

37. *Check.*—The total check of survey was 7·22 linear miles per square mile, of which 1·84 were of ordinary *partal* as in original surveys, 4·15 were *katan partal* (i.e., *partal* in which only intersection of the *partal* lines with the field boundaries are tested) and the rest independent and final *partal*. The *partal* of Assistant Settlement Officers was 0·28 of a mile per square mile and that of Kanungos 0·78. The rest was done by Inspectors. In addition to this the measurements of 3·42 per cent. of the plots were separately tested by what is known as *tukra partal*. The record-writing of 14·16 per cent. of the plots was checked, 0·36 by the Assistant Settlement Officers, 1·30 by Kanungos and the rest by Inspectors. The total amount of check is greater than that of last year, but the *partal* of maps done by Assistant Settlement Officers is ·08 of a mile per square mile less, and their check of record-writing 0·14 per cent. less than was done by them last year. It has been explained in the reports of

previous years that check by Assistant Settlement Officers who have to bear the whole burden of deciding disputes is unavoidably small. I consider that the check of survey and record-writing was more than adequate.

38. *Internal disputes.*—17,521 disputes were instituted and decided during the year against a total of 22,228 disputes in the previous year. This works out at 0·74 per cent. of the plots, as compared with 1·09 per cent. of the previous year and 1·3 per cent. of the plots in the year 1915-16.

The decrease in the number of disputes is due to the efforts made by the superior staff to discourage disputes, in which they were generally assisted by the co-operation of Inspectors and Amins. Two of the Assistant Settlement Officers appointed a *panchayet* in each village of their circles and allowed only those disputes to be entered which the *panchayet* was unable to settle. The experiment worked well and there were few disputes in these circles and no complaints that *bona fide* disputes had not been entertained.

39. *Boundary marks.*—There are 3,620 trijunction points in the area surveyed during the year. The old marks were found intact at 1,936 places. Stones were embedded at trijunctions where no marks were found.

40. *Increase of fields.*—The increase in the number of fields since the last survey is 21 per cent. which is 3 per cent. less than that in the Siwan Subdivision and 6 per cent. less than that in Gopalganj. The increase is less in the area where the number of plots at the last settlement was greater. The settlement operations themselves are a cause of an appreciable increase, for cosharer tenants often avail themselves of the opportunity of effecting a partition of their holdings at the time when the map is being revised.

41. *Costs.*—The total expenditure for the season's area, including the cost of forms of which a large balance is left, is Rs. 2,28,418. The incidence of cost is Rs. 253-2-1 per square mile, and Rs. 9-10-4 per hundred plots, against Rs. 237 per square mile and Rs. 9-9-4 per hundred plots of the previous year calculated after deduction of the charges for the building of a record room and for forms expended in that year. As costs in a revision settlement should not be compared with reference to area but with reference to the number of plots, the increase in the cost-rate is very slight, which is due partly to the increase of the pay of gazetted officers and partly to the reduction of the size of the circles which enhanced the cost of supervision. The circles were smaller because the increase of plots was less than was expected, and because a number of *diara* villages had diluviated since the last settlement.

It was decided by Government to postpone the revision in Muzaffarpur for two years, and the cadastral office was closed at the end of the year.

SARAN SETTLEMENT.

42. *Programme.*—The programme consisted of (i) the attestation and draft publication of the records of 1,503 villages in the Siwan Subdivision containing 807·80 square miles and 2,056,644 plots, (ii) disposal of objections under section 103-A, Bengal Tenancy Act, in the area under attestation, (iii) final publication of the records of the villages of the Gopalganj Subdivision except of 2 *diara* villages excluded by authority of Government Notification No. 5240-R-S-150, dated the 12th August, 1918, (iv) settlement recess of the attestation area, (v) preparation of cess revaluation rolls for the same area, and (vi) case work under sections 105, 106 and 40 of the Bengal Tenancy Act relating to the Gopalganj Sub-division.

43. *Section 103-A Objections.*—The following are the figures :—

Total objections	...	32,995
Decided	...	32,984
Allowed	...	9,652 or 29·26 per cent.
Disallowed	...	23,332 or 70·74 „

Of the number allowed 5,245 were entirely new claims advanced for the first time at this stage of the operations. The number of objections allowed relating to claims entertained at attestation or during perliminary record-writing is less than 14 per cent. I consider that the result is satisfactory. All parties evinced keen interest in the proceedings. They scrutinized the records closely, insisting on understanding the entries and their effect, and usually pressed for minute fidelity to the last settlement record. Both the superior and the subordinate staff were experienced and competent.

44. *Sales and Mortagages.*—(*a*) 273 sales of proprietary rights came to notice, 202 transferees were landlords, 21 raiyats, 13 lawyers and 37 money-lenders. The money advanced amounted to 84 times the Government revenue but it would be unsafe to make any inference from this as to the value of proprietary rights for the figures relating to the proportion of the sale price to Government revenue are liable to be inaccurate owing to the difficulty in ascertaining the shares of revenue to be apportioned to the interest transferred. (*b*) The number of transfers of occupancy rights by sales recorded for the last 12 years is 3,768.

Total price	Rs. 5,90,080-12-8.
Area	3587·07 acres.
Average price	Rs. 164-7-9.

Proportion of area transferred to whole area held by occupancy raiyats :— 1 acre in 106.

The following are the figures for the Gopalganj Subdivision :—

Average price per acre=Rs. 103-9-6.

Proportion of area transferred:—1 acre in 35.

(*c*) The total area of raiyati holdings mortgaged in the last 12 years in 43,959 acres and the average amount advanced per acre is Rs. 166-9-6. In Gopalganj where the raiyati area is 3·70 per cent. less the area mortgaged was 1·27 per cent. less and the amount advanced was Rs. 129 per acre.

The high price obtained on the sale of *raiyati* land and the comparatively small number of sales are to be attributed to the pressure on the soil of the dense population in this subdivision and to the *raiyat's* reluctance in consequence to part with any of the holdings, rather than to the non-transferability of occupancy rights. Although the majority of the landlords do not admit the right of free transfer, nevertheless in practice objection is rarely made and either only a nominal or no mutation fee at all is demanded. That the sum obtained on a mortgage is higher per acre than the sale price is mainly due to the accumulations of debt before many of the transactions of the former kind take place, sometimes on compound interest at fanciful rates, the total being a sum far in excess of the amount advanced or which the mortgagee expects to be able to realize. The extent of area given in mortgage is large, but, as in the Gopalganj Subdivision, the majority of the mortgagees are of the *raiyat* class. There is no indication that *raiyats* in general are being ousted from their land by professional money-lenders.

45. *Costs*: —

	Rs.	
Total expenditure during the year ...	2,48,548	
Receipts	1,46,261	
Net expenditure	1,02,287	or Rs. 126-9-4 per square mile.

The true test for the purpose of comparison of cost rates is the cost per 100 plots. It is Rs 12-1-4, or Re. 1-15-5 more than that of the previous year. The increase is chiefly due to the following reasons :—

(*a*) The cost this year includes that of final publication of which there was none in the previous year ;

(*b*) The cost of the civilian staff is greater ;

(*c*) the statement of the expenditure includes Rs. 10,133 credited to Champaran as the price of furniture, tents etc., transferred to the account of this district ;

(*d*) the larger number of tnancies in proportion to the number of plots.

46. *Recovery of costs.*—Proposals for the apportionment of cost in the Gopalganj Subdivision at the rate of 6 annas per acre from landlords and Re. 0-5-2 from *raiyats* were submitted to Government and have been sanctioned. Computation has commenced and recovery will be taken up in the cold weather. It is expected that the greater part of the cost will be recovered in the current financial year.

47. *Recess Work and Cess Revaluation.*—A small balance of recess work remaining to be done will be finished by the end of October. The reasons for the delay are the size of the programme and insufficient office accommodation. It was decided during the year to make a cess revaluation in the Sadr and Siwan Subdivisions under Chapter IIA of the Cess Act. Rules under the Act for the guidance of the staff have been framed and submitted for sanction. The revaluation of the estates and tenures of the Siwan Subdivision will be completed in time for the publication of the rolls with the record-of-rights in the field season.

48. *Chaukidari chakran lands.*—The Assistant Settlement Officers were appointed Commissioners under section 58 of the Chaukidari Act by Government Notification No. 640-S—25, dated the 29th January, 1918. A total area of 137 acres in 69 villages was found to be, and recorded as, unresumed *Chaukidari chakran* lands. The Collector was able to supply very little information as to the existence and situation of unresumed *Chaukidari chakran* lands, and the Assistant Settlement Officers had to depend mainly on oral evidence. They experienced difficulty in the identification of *Chaukidari chakran* lands already resumed, for usually in resumption proceedings only the boundaries and the approximate area of the land resumed were specified and not the last settlement plot numbers.

49. *Section* 58, *Bengal Tenancy Act and Rent Receipts.*—Seventeen cases of failure on the part of landlords to grant rent receipts in accordance with the law were reported to the Subdivisional Officer of Siwan. Fines were inflicted in only four cases. In seven cases the landlords were discharged with a warning. Where irregular receipts had been filed the Subdivisional Magistrate accepted the landlords' defence that they were merely notes of payments for which receipts in the proper form were given subsequently. In most of the cases the *raiyats* repudiated in court their statements made to the Assistant Settlement Officers. It is a pity that more cases did not result in conviction, for the provisions of the law in this respect are generally disregarded by petty landlords who constitute the majority in this subdivision, and only those cases were selected for prosecution where the landlord had dishonestly taken advantage of their omission to give rent receipts.

50. The figures of cases instituted in the Gopalganj Subdivision of which the record was finally published during the year are as follows:—

Section 105, Bengal Tenancy Act $\frac{\text{2,455 cases}}{\text{106,489 tenancies.}}$

„ 106 „ „ „ 2,026 cases.

„ 40 cases—During the year 770. Total 933.

The case work programme has maintained the unprecedented proportions it assumed in Champaran. This was to be expected in the Gopalganj Subdivision where most of the area is comprised in one estate. The applications for enhancements in the rest of the district, where the majority of the landlords are peasant proprietors, are likely to be few. The rise of prices gives the landlords a claim to an enhancement of Re. 0-2-6 in the rupee under section 30 (*b*), Bengal Tenancy Act. Case work commenced at the close of the year and only 3 cases under sections 105 and 50 under section 106 have been disposed of.

51. *Features of Attestation.*—The most prominent economic feature of the area under attestation is the heavy pressure of the population on the soil the effect of which is an enormous increase in the value of land since the last

settlement indicated by the large sums of money obtained from sales and mortgages and by the eagerness manifested by most landlords to acquire raiyati rights and to enlarge the area in their direct possession. It is also the cause of the high incidence of rent, of the further divisions of holdings and of proprietary rights already very small, and of additional encroachment by cultivation on land which should be reserved for pasture. Almost the whole of the increase of the average rate of rent from Rs. 4-6-3 at the last settlement to Rs. 4-10-9, which is the existing rate, is to be assigned to settlement of lands with raiyats on high rents. The average rate of rent of holdings created since the last settlement is over Rs. 9 an acre representing more than one fourth of the value of the gross produce. In one attestation camp in Darauli thana containing 93 villages it was found that in 33 villages the average rate of rent is more than one-fifth of the gross produce and in 9 more than one-fourth. It is only the cultivation of sugarcane for which there was increasing demand, and in some places of other special crops, and the proceeds of labour in other provinces which enable the raiyats to pay such high rents.

The last settlement took place at a time when rents were being enhanced and it not only effected the excision of illegal enhancements, but also arrested the further increase of existing rents by even legal enhancements to which the raiyats' resistance was stiffened by the educative influence of the operations and by the support afforded by an authentic record of rents. It was rare at attestation to find that the rent of a holding created before the last settlement had been enhanced, although there were some cases in which the Civil Court without reference to the record-of-rights awarded decrees to the landlords usually on a compromise, for rent not legally payable.

The large number of petty proprietors, the smallness of their estates, and the subdivision by private partition into *pattis* involving the multiplication of *khewats* and *khatians* made attestation tedious and troublesome. The number of estates in the district has increased since the last settlement from 5,373 to 6,824. The partitions greatly added to the labour of attestation for they necessitated a close scrutiny to prevent the attestation of illegal enhancements resulting from the division of the rents. In recent partitions, however, it was found that care had been taken to apportion only the existing rents among the new estates, but the case was different where partitions had commenced before the last settlement and were not completed until after it. The total of the rents claimed by the various proprietors from particular raiyats was far greater than those recorded as payable in the last record-of-rights. The procedure adopted at attestation was to divide the rent in the same proportion as the division made in the partition proceedings where such a division had been made, and where, as in most cases, it had not, in proportion to the rents actually realized if these could be ascertained. Generally the evidence in support of the landlords' claims was unreliable and the Assistant Settlement Officer was faced with the alternative either of attesting the last settlement rent as payable to all the landlords without specifying the share of each, or of apportioning the rent in proportion to the area held under each landlord. As the effect of the former alternative would be to leave the question unsettled the latter was adopted in spite of its legal defects and was generally accepted by the parties without objection. In some cases the difficulty was settled by compromise.

An instructive example of the result of disregard of the record-of-rights in partition proceedings, and of the omission to correct Register D after settlement operations is afforded by the partition of tauzi No. 190. This estate lies in 13 villages in which it was recorded at the last settlement. In Register D it is shown as containing land in five. The Batwara Officer partitioned the estate in these but declined to do so in the remaining eight villages containing more than half of the estate.

The relations of landlord and tenant are generally amicable. In most parts of the subdivision the raiyat is the stronger party and it was the landlord who welcomed the operations especially where there had been a partition after the last settlement. The main source of contention between landlord and raiyat was with respect to the area recorded as being in the landlord's own occupation

at the last settlement. The landlord usually claimed to be still in possession of all such land, and where this claim failed he affirmed either that the rent was a produce rent or a far higher money rent than had been paid. Raiyats still consider that they have no right of occupancy in produce-rented holdings.

CHAMPARAN SETTLEMENT.

52. *Programme.*—The programme consisted of case work under sections 40, 105 and 106, Bengal Tenancy Act, of recovery of settlement costs and of the revision of rents under the Champaran Agrarian Act, which came into operation during the year.

53. *Case Work.*—The few cases remaining at the close of the year were finished in the middle of October. The enhancement ordinarily allowed was 3 annas in the rupee, and it works out at an increase of 12·50 per cent. of the total of the rents of the tenancies in respect of which there were applications under section 30, Bengal Tenancy Act. The failure to obtain a higher percentage of increase is to be ascribed in some cases to insufficient evidence of the currency of rents and in others to the fact that applications were made for enhancement of rents which had not been current long enough to justify enhancement on the ground of rise of prices or which had already been enhanced by contract. A unique feature of the revision rent settlement is the use made by the parties particularly by the landlords of section 108, Bengal Tenancy Act for revision of the decision of the Revenue Officers in preference to an appeal to the Special Judge, thus greatly augmenting the work of the Settlement Officer. 290 applications under section 108 were made resulting in a total additional enhancement of Rs. 2,491-12-3. The rather extensive revision of orders of the Revenue Officers under this section is not a reflection on the quality of their work. The Bettiah estate was allowed in a number of cases to adduce additional evidence, and most of the orders under section 108, Bengal Tenancy Act, gave effect to a ruling of the Special Judge in an appeal heard after the majority of the cases under section 105 in the Bettiah Subdivision had been disposed of. The Revenue Officers had allowed enhancements only of rents current for 15 years or more, and at rates varying with the age of the tenancies. The Special Judge allowed enhancement calculated from the comparison of the prices of two decennial periods of all rents current for ten years or more. In a recent decision enhancement was allowed of rents current for five to ten years on the basis of a comparison of the prices prevailing during the period of currency with those of an equal period immediately preceding it. This comparison shows that a greater enhancement is allowable in the case of rents fixed five years ago than in the case of rents fixed seven years ago, an astonishing result which suggests the equity of fixing a minimum period within which rents fixed by contract may not be enhanced on the ground of an alleged rise in prices. It is highly probable that the framers of the Act did not contemplate the enhancement of rents current for less than fifteen years but they unfortunately omitted to say so.

54. *Section 40 Cases.*—A large number of applications relate to *hunda* tenancies of which the rent payable is a stated quantity of grain. Some decisions, original and first appeals, have been withheld pending a decision in a second appeal as to whether such rents should be commuted and if so as to the method of commutation. In the only case of this kind of rent heard on second appeal the late Commissioner, remanding it on another ground, expressed the view that where a trustworthy account is available of the cash equivalents realized of *hunda* rents regard should be had to average cash rates only for some exceptional reason, the best guide in all commutation cases being the money value which has actually reached the landlord's treasury. The applications of this method of commutation in the case of *hunda* rents would result in the adjudication of rents seven to ten times the average rent of similar land and higher than the highest existing rents in the district. If it

is decided that *hunda* rents are not commutable there will be a class of rent not controlled by any provision of the Bengal Tenancy Act. The argument usually advanced by the landlords against commutation is not that the raiyat has not occupancy rights, but that the *hunda* rent is a known and unvarying quantity of produce and that commutation would result in a reduction of the landlords' income.

55. *Recovery of cost* .—

	Rs. a. p.
Total demand	3,12,205-3-9
Collected during the year by voluntary payments ...	2,38,602-12-6
Collected during the year by certificate	11,660 8-0
Balance	91,941-15-3

Rs. 79,912-5-0 is due from the Bettiah Estate and Rs. 11,058-7 6 from European tenure-holders. The greater part of the demand from the latter relates to villages in which rents have been revised under the Champaran Agrarian Act which delayed the recovery of costs. It was resumed in these villages after correction of the *khatians* at the close of the year.

56. *Champaran Agrarian Act.*—The figures relating to the operation under this Act are as follows :—

Total number of tenancies of which rents were settled ...	35,605
Under Section 4(1)*a*	31,309
,, ,, 4(1)*b*	4,296

	Rs. a. p.
Total previous rent	4,42,868-6-9
Settled rent	4,17,467-4-3

Total number of objections under Statutory rule 12 under the Act	Number.
up to 30th September, 1918	1,829
Disposed of	1,210
Allowed	51
Disallowed	1,169

No case under section 3 was instituted during the year. The attitude adopted by the raiyats, particularly those of the Pipra, Turkaulia and Jallaha Concerns towards the new Act, is disappointing. Many after expressing their intention to continue to resist payment of the enhanced rents refrained from attending the special Courts. Others filed a general petition of the nature of a protest to the whole proceedings and about 1,700 lodged objections under Statutory rule 12 of the Act raising issues relating to the legality of the enhancement or of the special incident which it was hoped that the special legislation would set at rest. The raiyats did not admit that they were a party to the compromise to which it gives effect and openly repudiated Mr. Gandhi. The opposition generally was led by influential raiyats who had resisted the enhancements from the beginning of the revision operations, and hoped successfully to contest their legality in the Civil Courts, but it was very genuine in the cases of raiyats who had never agreed to pay enhanced rents and whose rents have been enhanced under the new Act. Some had never actually grown indigo and the majority were resolved not to grow it in future, realizing that it would be difficult or impossible for the landlord to compel them to do so especially as he would not want indigo from only a few of his raiyats.

Singhbhum : The Kolhan Government Estate.

Area 1,367 *square miles*; 911 *villages* ; 1,0,47,466 *fields.*

57. *Programme.*—The year's programme consisted of (*i*) final publication of the records of 731 square miles, (*ii*) disposal of post-publication suits and (*iii*) fair rent settlement under section 85(2) (*ii*) of the Chota Nagpur Tenancy Act. The whole programme was completed and the records were deposited in the Deputy Commissioner's office.

58. *Suits under sections* 87,130 *and* 252 *of the Chota Nagpur Tenancy Act.*—Six suits under section 87 were instituted during the year. Nineteen cases under section 87, 4 cases under section 130 and 1 case under section 252, including cases pending from the previous year, were disposed of during the year.

59. *Fair Rent Settlement.*—Fair rents were settled for the whole estate on the lines of the test cases decided last year. The work was finished by the end of March. The fair rates adopted were:—*Bera* nine annas per bigha; *bad* seven annas; *gora* and *bari* one and a half annas. These rates were applied in the case of Hos and other privileged tenants, the rates for non-privileged tenants being double of these. The privileged rates previously in force were *Bera* and *bad* six and a half annas and *gora* one anna per bigha. The application of the new rates gave an increase of about 38 per cent. in the total rental, much of which is due to the large increase in cultivation which has taken place since the last settlement.

Sixty-three appeals were filed against the decisions of the rent settlement officers. In 10 cases the decisions of the Lower Court were reversed, in 19 upheld and 34 cases were struck off.

60. *Cost of all operations.*—The total cost of all operations in the estate up to 30th September 1918, is Rs. 3,39,046.

Cuttack: Banki Government Estate.

61. *General.*—The area of the estate is 117 square miles. It comprises 144 villages including some entire revenue-free villages. This estate was last cadastrally surveyed in the year 1888-89 and the maps and records then prepared were revised in 1905-06, the revised maps being made the basis of a fresh settlement of revenue the term of which will expire on 1920-21. The maps of 1887-90 being now too old for further revision a *de novo* survey of the estate was ordered by Government in their letter No. $\frac{6996}{S\text{-}169}$R., dated the 24th November, 1917.

62. *Programme.*—The year's programme consisted of the cadastral survey and preliminary record-writing (both field and recess) of the whole area. The whole programme was completed.

63. *Staff.*—Babu Radha Charan Das, Deputy Collector, was in charge of the operations throughout the year in addition to his other duties which include those of manager of the estate.

64. *Cadastral Survey.*—Cadastral survey was started in the middle of November, 1917, and was finished by the middle of February, 1918. The progress in the beginning was retarded by unusually late rains. The survey was checked by 7·20 linear miles of *partal* per square mile, of which 3·49 miles were ordinary *Kistwar partal*, ·77 independent and final *partal*, and 2·94 check of quadrilateral lines on which the detailed survey is based. In addition to this the measurements of 113 acres of separate blocks and homesteads were tested. Of the total check of 7·20 linear miles per square mile 1·03 was done by the Settlement Officer and the rest by the Head Inspector and Inspectors.

65. *Preliminary record-writing (Khanapuri) and internal disputes.*—The preliminary record-writing including the decision of internal disputes was completed by the end of May. There were 390 internal disputes all of which were decided. The record-writing of 1·5 per cent. of the plots was checked by the Settlement Officer and 31·6 per cent. by the Inspectors and Head Inspector.

The total number of plots which was 140,978 during the last settlement has increased to 166,788, an increase of 18·3 per cent.

66. *Rent receipts.*—Rent receipts in the prescribed form are regularly given to the raiyats by the *sarbarakars*.

67. *Boundary marks.*—11 trijunctions and 537 boundary stones out of 326 and 2,241 respectively were missing and were replaced by the survey staff. All stones were duly made over to Chaukidars and Dafadars.

68. *Cost.*—The total cost for the year under report amounts to Rs. 12,733-10-8 exclusive of auxiliary and indirect charges of Rs. 213 and Rs. 1,847-7-11 respectively making a total expenditure of Rs. 14,794-2-7 against the total estimate of Rs. 18,000 (Rs. 11,000 for 1917-18 plus Rs. 7,000 for the first six months of 1918-19).

The cost-rate per square mile excluding the auxiliary and indirect charges comes to Rs. 108-13-0.

Maintenance of Land Records in Sambalpur.

69. According to the sanctioned scheme for the preparation of new maps and records for the district of Sambalpur, maps were prepared during the year under report for 386 villages covering an area of 672 square miles, and records for 402 villages containing 363,785 plots, against maps of 463 villages covering an area of 782 square miles and records of 448 villages containing 396,409 plots completed last year. The Assistant Superintendent of Land Records was put in charge of three circles and of the Drawing Office opened at Bargarh. The Superintendent of Land Records supervised the work of the whole district, made local enquiries in boundary disputes, prepared crop statements and did other miscellaneous work. Two Drawing Offices were opened for inking up the maps, one at Sambalpur and the other at Bargarh.

70. The survey check amounted to 1,529 linear miles giving an incidence of 2·27 linear miles per square mile, while the check of record-writing was 49,847 plots or about 14 per cent of the total number of plots for which records were written during the year. The maintenance work as well as the survey and the map preparation work were adequately supervised by the Deputy Commissioner, the Sub-divisional Officer, the Superintendent and Assistant Superintendent of Land Records and other supervising officers.

71. The Superintendent of Land Records was on tour for 108 days while the Assistant Superintendent of Land Records was out for 145 days. Some of the *patwaris* were trained in Drawing and the maps prepared by them were neat and clean. Each *patwari* received a practical training both in survey and record-writing in the field and in the recess office. A candidate before he passes the prescribed examination, has to survey at least 1,500 acres in the field, prepare jamabandi of 300 *khatas*, and extract areas of 2,000 plots. Good conduct allowances were sanctioned for 81 *patwaris*, and recess allowance at the rate of Rs. 2 per month was given to all the *patwaris* working in recess during the year under report.

North Bihar Mutation Offices.

72. The experimental mutation offices at Hajipur and Mahnar in the district of Muzaffarpur were continued during the year under report. The total receipts from all sources amounted to Rs. 1,491-11-0 as against an expenditure of Rs. 1,626-11-2, showing a total loss of Rs. 135-0-2 on the working of both the offices.

Mutation in Government and Wards' Estates.

73. The results of the mutations effected during the year under report in Government and Wards' Estates will be found in Appendix V. In the Government estates, the standard percentage of mutations, viz., 8 per cent of the total number of tenancies, was attained in only 4 districts. In the remaining districts the percentage varied from ·51 to 7·98 per cent. In the Wards' estates the prescribed standard was attained in 6 estates in districts Muzaffarpur, Santal Parganas, Puri and Ranchi, and it was low in almost all the remaining estates. As in previous years the low percentage is attributed in some cases to the recent publication of the record-of-rights and to the non-recognition of the mutation of portions of holdings. In Chota Nagpur it is attributed to the inadmissibility of transfers of raiyati holdings by sale or gift under the Chota Nagpur Tenancy Act. In the majority of the Wards' Estates, however, the low percentage is probably attributable to inadequate inspections by the managers.

Inspection of Rent-Rolls.

74. The results of the inspection of rent-rolls by superior and inferior agencies have been embodied in Appendix VIII. As in previous years, the percentage of check in some cases amounted to 100 per cent but in a large number of such cases no unreported mutations were detected. The prescribed standard of 50 per cent. check of the rent-rolls was not attained in several estates, and no satisfactory explanation of the failure to reach the standard has been furnished.

CHAPTER IV.—MAINTENANCE OF BOUNDARY MARKS.

(See Appendix IX.)

75. The reports received from the district officers indicate that the work of maintenance of boundary marks continued to receive attention and that generally adequate steps were taken for the restoration of the marks found damaged or missing. In Appendix IX will be found the details of the results of inspection in the different districts.

The Special Ganges Diara Reference Pillars found missing in the district of Patna and Monghyr were restored during the year. Those found in precarious positions liable to fluvial action were shifted to safer sites. Altogether 55 pillars were restored or removed to safer sites in the two districts.

76. *Fund for the maintenance of Boundary Marks.*—During the year advance recoveries in respect of districts of Gaya and Champaran amounting to Rs. 29,300 were transferred to the fund for the maintenance of boundary marks. The total receipts to the fund now amount to Rs. 77,207. The total expenditure up to the end of the financial year 1917-18 was Rs.6,250-2-0 leaving an opening balance of Rs. 70,950-14-0. The expenditure during the financial year amounted to Rs. 1,722-11-5 the details of which are noted below :—

	Rs.	a.	p.
South Monghyr	85	5	7
South Bhagalpur	18	15	0
Patna	121	9	0
Parganas Barahabhum and Patkum, District Manbhum ...	101	10	0
Shahabad	78	11	6
Gaya	326	8	4
Special Ganges Diara Reference Pillars	990	0	0
Total	1,722	11	5

The question of reduction of the standard rate at which the cost of maintenance of boundary marks is to be estimated and recovered in advance from landlords and tenants of districts under settlement was again considered during the year. A report on the subject based on the actual expenditure up to date in the districts in which the marks are being maintained was submitted in my letter No. 2258, dated the 24th June, 1918. The figures of actual expenditure disclosed that a rate which would suffice for one district may be grossly excessive for other districts. I was, therefore, unable to recommend any reduction of the existing standard rate of recovery of Rs. 3-12-0 per square mile as the sum to be recovered in each district should be sufficient to cover the highest possible expenditure. In letter No. 17-103-2, dated the 17th July, 1918, the Board agreed that there were not sufficient reasons to adopt a lower rate and instructed that the question should be considered on its merits in future recovery proposals.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

77. *Charge.*—I was in charge of this Department throughout the year.

78. *Tours.*—I was on tour for 90 days of which 75 days were spent in inspecting settlement operations and 15 days in inspecting Traverse survey, Drawing Office and the Survey School at Angul. I paid one visit to the North Bihar Settlement, five to Chota Nagpur, one to Sambalpur and one to Banki Settlement.

79. *Merits of Officers.*—Mr. Sweeney supervised the North Bihar Settlement with his usual efficiency up to the time he made over charge to Mr. Saunders, who has proved himself a thoroughly competent successor.

In Palamau, Mr. Bridge, in circumstances which must often have tempted him to despair, has continued undaunted to carry on his task of preparing a record-of-rights which, firmly enforced by the district authorities, will secure justice for a class to whom it has hitherto been virtually denied.

Messrs. Toplis and Tuckey worked with energy and success and relieved their Settlement Officers of no small part of the burden which the charge of a major settlement constitutes.

The following officers of the Provincial and Subordinate Civil Services deserve recognition for their work during the year:—

I.—Deputy Collectors.

1. Babu Rajani Kanta Sen.
2. ,, Sudhanshu Bhushan Mitra.
3. ,, Pashupati Ghosh.
4. ,, Phanindra Nath Mukharji.
5. ,, Akhauri Gopi Kishor Lal.
6. ,, Mathura Prashad Chaube.
7. ,, Phanindra Nath Gupta.
8. ,, Jugal Kishor Singh.
9. ,, Basanta Kumar Ray.
10. Khan Sahib Muhammad Hamid.
11. Maulavi Abdul Qadir Khan.
12. Babu Sharbari Kanta Gupta.

II.—Munsifs.

1. Babu Nirmal Chandra Ghosh.
2. ,, Kshetra Nath Singh.

III.—Sub-Deputy Collectors.

1. Babu Bhagaban Mahapatra.
2. ,, Ramesh Chandra Chakravartti.
3. ,, Manoranjan Singh.
4. ,, Deva Sagar Singh.
5. ,, Birinchi Jha.
6. ,, Nagendra Nath Ghosh.
7. ,, Bijay Kanta Sen.
8. Maulavi Muhammad Tahir.
9. Babu Jayadev Misra.

PART II—TRAVERSE SURVEYS AND DRAWING OFFICE.

CHAPTER I—TRAVERSE SURVEYS.

General Summary and General Remarks.

Programme and outturn.

80. The programme of Traverse survey was 732 square miles in the district of Manbhum, which was sanctioned in Government Notification No. 5786—IIS-29, dated the 21st September, 1917. In addition to this thirteen miscellaneous petty surveys were undertaken and completed.

81. Excluding the share of control, the cost-rate for the work done during the year in the district of Manbhum is Rs. 37·3 per square mile against Rs. 39·6 for 1916-17.

Cost-rate.

CHAPTER II—DISTRICT SURVEYS.

District Manbhum.

82. The programme consisted of the Traverse Survey of 610 villages in thanas Purulia and Baghmundi, with an area of 732 square miles.

83. The country traversed is fairly open and cultivated with the exception of the southern portion of thana Purulia which is covered with scrub jungle. In thana Baghmundi the greater portion of the area is covered with hills and forests. The climate and season were on the whole healthy.

84. The village boundaries were not properly demarcated but there were few disputes. The field work was completed by the end of March and revisions went on till the end of May. A few revisions which could not be completed on account of the illness of the staff will be attended to early next field season.

CHAPTER III—MISCELLANEOUS SURVEYS.

(See Appendix XI).

85. The miscellaneous surveys were as follows:—

(1) *The catchment area in thana Topchanchi.*—The demarcation of the catchment area in thana Topchanchi in the district of Manbhum for the Jharia Water Supply Scheme was undertaken at the request of the Chairman, Jharia Water Board. The traverse stations of 1914-15 were re-opened and the sites of all the pillars on the outer boundary were fixed.

(2) *Khurda-Patia Boundary.*—The demarcation of the disputed boundary between the Khurda Government estate in District Puri and the Patia estate in District Cuttack according to the cadastral survey of 1896-97 was undertaken at the request of the Commissioner of the Orissa Division. The disputed boundary which is about 1½ miles in length was relaid by opening the old traverse stations of 1894-95 and the sites of the pillars were fixed.

(3) *Khurda-Ranpur Boundary.*—The demarcation of the disputed boundary, 8 miles in length, between the Khurda Government estate and the Feudatory State of Ranpur according to the survey map of the last settlement was undertaken at the request of the Commissioner of the Orissa Division. The old traverse stations of season 1879-80 were re-opened and new sub-traverses were run where necessary. The sites of 94 pillars marked with wooden posts were fixed.

(4) *Puri Municipality.*—A traverse survey of Puri Municipality comprising an area of 4·99 square miles, which was ordered in Government Notification No. 3471-M., dated the 18th March, 1918, was carried out during the year.

(5) *Balasore-Nilgiri Boundary.*—Of the 40 pillars found in incorrect positions, 8 being absolutely superfluous were demolished, the remaining 32 were re-erected in correct positions along the boundary.

(6) *Ganges Diara Special Demarcation.*—The missing Ganges *Diara* reference pillars in the districts of Patna and Monghyr were restored during this season. Fifty-five new pillars including those lost were fixed in new sites. All pillars found in precarious positions were removed to safer sites.

(7) *District Monghyr.*—The demarcation of villages Jorawarpur, Temtha Dumuria and Shambhupur in Tappa Jamalpur, Pargana Pherkia, district Monghyr, according to the Gangetic Survey of 1865, was undertaken at the request of the Collector.

(8) *District Sambalpur.*—The traversing of 14·3 square miles comprised in 15 scattered villages in thanas Jagdalpur, Bheran, Attabira Laikera, Sambalpur, Dhama and Mundher was undertaken at the instance of the Deputy

Commissioner of Sambalpur for the purpose of revision surveys. There were 443 traverse stations and 59·5 miles of chaining.

(9) *Patna-Bòrasamber Boundary.*—The traversing of the boundary as decided by the Political Agent, Orissa Feudatory States, was undertaken at his request. There were 80 traverse stations and 7·5 miles of chaining.

(10) *Sambalpur Municipality.*—Traversing of the Sambalpur Municipality comprising an area of 1·82 square miles was undertaken at the request of the Deputy Commissioner.

(11) *Nepal-Bhagalpur Boundary.*—The sites of missing boundary pillars between Nepal and the district of Bhagalpur were marked and reference pillars were fixed. The work was sanctioned by Government in their letter No. 174P.P. dated the 19th November, 1917. The entire length of the boundary extended over a distance of about 17 miles, which was inspected and the site of all pillars (pucca pillars, stone prisms and wooden posts) including those lost were fixed.

(12) *District Santal Parganas.*—The demarcation of the disputed boundaries between villages Sukahar and Dhulahar on the one side and village Brahma Jamalpur on the other in sub-division Rajmahal in the district of Santal Parganas, according to the Revenue Survey maps of 1847-48, was undertaken at the request of the Sub-divisional Officer, Rajmahal.

(13) *New Tetturya Colliery in district Manbhum.*—The traverse and survey of the boundary of the new Tetturya Colliery near Katrasgarh in district Manbhum was undertaken at the request of Messrs. Shaw Wallace & Co.

CHAPTER IV.—BIHAR AND ORISSA DRAWING OFFICE.

(*See Appendices XI and XII.*)

86. *Charge.*—Mr. J. H. Murphy was in charge of the office throughout the year.

Imperial Standard Mapping Section.

87. The section was employed throughout the year on the compilation and fair mapping of 2 inch and 1½ inch originals, for reduction to the inch scale, as well as completion of margins and the insertions of hills of such sheets already published as are not complete in this respect, the data for the above being supplied from existing old materials and from 16 inch cadastral survey sheets. The figures supplied by the Director of Surveys, Bengal, show the outturn for Bihar and Orissa as follows :—

(1) Twenty-four 2-inch standard sheets, 14 new and 10 old, together with outrigger to sheet No. 63 0/8 and the area for Bihar and Orissa falling in sheet No. 73 0/5 were sent to the Map Publication Office for publication. The sheets relate to the districts of Palamau, Shahabad, Hazaribagh, Ranchi, Monghyr, Santal Parganas, Balasore and Sarguja and Jashpur States in the Central Provinces and Benares in the United Provinces.

(2) Twenty-two uncorrected proofs were examined.

(3) Eighty-eight green, red, blue and yellow colour guides were examined.

Provincial Drawing Office.

88. *District Maps.*—The ½ inch map of district Sambalpur has been completed and will shortly be sent for publication. The ½ inch district map of Ranchi is in hand.

89. *Skeleton District Maps.*—The skeleton district map of Shahabad on the scale 1″=8 miles was completed and is now in the proof stage.

90. *Final Thana Maps.*—Nineteen thana maps on 61 sheets falling in districts Hazaribagh, Ranchi, and Gaya were compiled.

91. *Special Ganges Diara Maps.*—Twenty-three Special Ganges *Diara* maps were compiled and published during the year. Twelve sheets still remain for compilation and publication. In addition 191 reference pillars and 84 intersected points were plotted on to their respective 16″ village maps.

92. *Miscellaneous Maps (inter-departmental).*—A number of maps consisting of 26 different items were prepared for the Government Press, Heads of Departments and other offices for the purpose of illustrating reports and other works. These include a ½ inch map of District Champaran, a map of Neterhat, seven Municipal maps of Gaya, Ranchi, Motihari, Bettiah, Patna, Muzaffarpur and Monghyr for military purposes, a map of Gaya district for illustrating the final settlement report, a map of Patna University, a chart map for the Registrar of Patna University, a plague chart map for the Sanitary Commissioner, etc.

93. A statement showing the outturn of work in the Bihar and Orissa Drawing Office together with the expenditure incurred during the year is given in Appendix XI.

94. *Cost rate.*—A statement showing the cost per copy of various kinds of maps reproduced during the year is given in Appendix XII. The cost rates are slightly higher than those of last year. This is mainly due to the rise in prices of paper, cloth, chemicals and stationery, the purchase of zinc plates worth Rs. 1,600, and the repair and overhauling of the Electric Press which worked unsatisfactorily and was stopped for about two months.

CHAPTER V.—CHARGE AND TOURS OF THE DIRECTOR AND NOTICE OF OFFICERS.

95. *Charge.*—I was in charge of the Survey Department throughout the year.

96. *Tours.*—I spent 90 days on tour of which 15 days were spent in inspecting the office of the Traverse Section at Hazaribagh, the Bihar and Orissa Drawing Office at Gulzarbagh, and the Survey School at Angul.

97. *Merits of Officers.*—Mr. J. H. Murphy as Officer in charge of the Drawing Office at Gulzarbagh and Mr. Alderson of the Traverse Office at Hazaribagh deserve credit for the efficiency of the work done by them during the year.

I have the honour to be,

Sir,

Your most obedient servant,

P. W. MURPHY,

Director of Land Records and Surveys, Bihar and Orissa.

B. & O. G. P. (D. L. R.) No. 23—289—1—9-1-1919—J. C. B. and others

APPENDICES.

APPEN

[*See* Chapters II and IV of

General Progress of Survey and Settlement

Note.—The areas shown in this Appendix

Division and District.	Name of estate or tract under settlement.	Date of inception of operations.	Estimated area in square miles under settlement.	Total number of villages.	Area cadastrally surveyed in square miles.			AREA IN		
								In which records were prepared for attestation—		
					Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11
										I.—Settlement of
										Government
										Nil.
										II.—Other
Patna.										(*a*) *Or*
Gaya ...	Gaya District ...	October, 1912...	4,703	6,782	4,703	...	4,703	4,703	...	4,703
Chota Nagpur.										
Hazaribagh ...	Hazaribagh District...	October, 1909...	6,908	7,007	6,908	...	6,908	6,908	...	6,908
Palamau ...	Palamau District ...	November, 1913	4,702	3,599	4,702	...	4,702	4,700	2	4,702
Patna.										(*b*) *Revi*
Gaya ...	Gaya District ...	.....	33	52	33	...	33	33	...	33
Tirhut.										
Champaran ...	Champaran District...	September, 1913	*3,254	2,863	3,254	...	3,254	3,254	...	3,254
Saran ...	Saran District ...	October, 1915	2,487	4,681	1,585	902	2,487	1,584	902	2,486
Chota Nagpur.		—								
Singhbhum ...	The Kolhan Government Estate.	October, 1913	1,367	913	1,367	...	1,367	1,367	...	1,367
Orissa.										
Cuttack ...	Banki Government Estate.	October, 1917...	117	144	...	117	117	...	117	117
	Total ...	...	23,571	26,031	22,552	1,019	23,571	22,549	1,021	23,570

*Excludes Municipal area.

DIX I.

Part I of the Report.]

during the year ending 30th September, 1918.

are to the nearest square mile.

SQUARE MILES.													
In which attestation was completed.			In which draft publication was completed—			In which final publication was completed—			Cost of operations—			Total cost-rate in the operations shown as completed in this return.	
Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Up to the end of the preceding year.	During the year.	Total.	Estimated.	Actual.
12	13	14	15	16	17	18	19	20	21	22	23	24	25
									Rs.	Rs.	Rs.	Rs.	Rs. a. p.
LAND REVENUE.													
Estates.													
SETTLEMENTS.													
ginal.													
4,703	...	4,703	4,703	...	4,703	4,703	...	4,703	12,74,485	22,962	12,97,447	...	...
6,908	...	6,908	6,908	...	6,908	6,908	...	6,908	17,11,514	3,351	17,14,865	...	248 6 0
3,733	969	4,702	3,733	969	4,702	2,591	1,142	3,733	8,63,331	1,89,198	10,52,529	...	95 0 1
sional.													
33	...	33	33	...	33	33	...	33	40,889	...	40,889	...	...
3,254	...	3,254	3,254	...	3,254	3,254	...	3,254	6,37,483	16,234	6,53,717	...	...
764	808	1,572	764	808	1,572	...	765	765	5,22,509	3,30,706	8,53,215	..	...
1,367	...	1,367	1,367	...	1,367	636	731	1,367	3,19,929	19,117	3,39,046	...	...
...	...	...	...	...	...	...	...	...	...	12,947	12,947	159	111
20,762	1,777	22,539	20,762	1,777	22,539	18,125	2,638	20,763	5,370,140	5,94,515	59,64,655	159	...

APPENDIX II.

[*See* Chapter II of Part I of the Report.]

PART A.

Progress in Settlement of Rents under section 104, *Act VIII of* 1885, *in areas that were under settlement of Land Revenue during the year ending* 30*th September,* 1918.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Number of tenants for whom rents were proposed.			Number of villages for which settlement rent-roll was published in draft—			Objections under section 104E.		
				To the end of the previous year.	During the year.	Total.	To the end of the previous year.	During the year.	Total.	Instituted—		
										To the end of the previous year.	During the year.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Gaya ...	100·66	112	8,508	8,508	...	8,508	112	...	112	1,025	...	1,025

Estate or tract under settlement.	Objections under section 104E.			Number of villages and tenants of which during the year a settlement rent-roll has been confirmed.						Comparative rental of villages and tenants in columns 19 and 20.		
	Disposed of—			To the end of the previous year.		During the year.		Total.				
	To the end of the previous year.	During the year.	Total.	Villages.	Tenants.	Villages.	Tenants.	Villages.	Tenants.	Former rental.	Settled rental.	Difference per cent. + or—
1	14	15	16	17	18	19	20	21	22	23	24	25
										Rs.	Rs.	
Gaya ...	1,925	...	1,925	112	8,508	...	...	112	8,508	78,677	91,385	+16·15

APPENDIX II.

PART B.

Progress in Settlement of Rents in areas that were not under settlement of Land Revenue during the year ending 30th September, 1918.

Estate or tract under settlement.	Total area in square miles.	Total number of villages.	Total number of tenants.	Proceedings under section 109 (c), Bengal Tenancy Act.				Number of section 105 cases which were instituted—				Number of section 105 cases which were instituted.	
				Number of tenants.	Rent according to landlord.	Rent legally payable.	Rent settled by compromise.	To the end of the previous year.		During the year.		Total.	
								Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
					Rs.	Rs.	Rs.						
Gaya ...	4,735	6,834	714,283	...	...	...	...	1,516	14,860	1	1	1,517	14,861
Hazaribagh ...	6,908	7,007	...	...	...	...	...	4,943	61,600	...	...	4,943	61,600
Do. Section 85 (2) (ii), C. N. T. Act.	...	...	...	...	...	...	...	1,101	4,965	23	1,349	1,124	6,314
Palamau, under Section 85 (3) (b).	...	...	...	...	...	...	...	4	133	1	21	5	154
Do. Section 85 (2), (i), C. N. T. Act.	...	...	...	...	...	...	...	951	15,051	510	3,927	1,461	18,978
Champaran ...	3,254	2,853	546,098	...	...	...	...	6,265	201,164	8	6,056	6,273	207,220
Saran	2,487	4,681	228,000	...	...	...	...	...	...	2,455	106,489	2,455	106,489

Estate or tract under settlement.	Number of cases which were disposed of—						Of tenants in column 18.			Remarks.
	To the end of the previous year.		During the year.		Total.		Former rental.	New rental.	Difference per cent. + or −.	
	Number.	Number of tenants.	Number.	Number of tenants.	Number.	Number of tenants.				
1	15	16	17	18	19	20	21	22	23	24
							Rs.	Rs.		
Gaya	1,498	14,577	19	284	1,517	14,861	78,483	86,248	+10·98	
Hazaribagh ...	4,942	61,599	1*	1	4,943	61,600	...	...	...	* Tried with section 85 (2) cases.
Do. Section 85 (2) (ii), C. N. T. Act.	1,100	4,964	24	1,350	1,124	6,314	7,485	8,969		
Palamau, under Section 85 (3) (b).	4	133	1	21	5	154	...	213	...	
Do. Section 85 (2)(i), C. N. T. Act.	24	231	72†	516	96	747	...	...	...	† Struck off at headquarters.
Champaran ...	3,276	83,605	2,830	97,924	6,106	181,529	8,81,596	9,91,794	+12·50	
Saran	...	...	3	4	3	4	...	...	...	

APPENDIX III.

[*See* Chapter II, Part II of the Report.]

Statement showing the nature and number of the holdings recorded in each settlement during the year ending 30*th September,* 1918.

Name of estate or tract under settlement.	Number of Khatians recorded in the name of—													
	Proprietors.		Tenure-holders' cultivating possession.	Raiyats at fixed rates or fixed rents.	Settled raiyats.	Occupancy raiyats.	Non-occupancy raiyats.	Rent-free holders.		Unoccupied.	Government.	Total.	Under-raiyats.	Remarks.
	As private lands.	Not as private lands.						Service tenure.	Others.					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Other Settlements.														
(a) Original.														
Palamau	34	6,104	19	...	* 20 42,334	7,254	397	3,339	464	6,036	247	69,205	5,431	*Khuntkatti.
(b) Revisional.														
Saran	644	8,507	6,815	1,367	2,96,589	89	812	5,992	19,207	24,773	1,016	3,07,661	20,670	
The Kolhan Government Estate in Singhbhum.	1	23	169	10,720	‡ 10,829 54,684	1,602	375	15	2,442	2,251	359	83,827	271	‡ Khuntkatti.

APPENDIX IV.

[*See* Chapter II, Part I of the Report.]

Showing the progress made in recovery of costs during the year ending 30*th September,* 1918.

Division.	District.	Estate or tract under settlement.	Demand.			Collections.							Balance.		
			Landlords' share.	Occupiers' share.	Total.	Landlords' share.			Occupiers' share.			Grand Total collected.	Landlords' share.	Occupiers' share.	Total.
						Voluntary.	By certificate.	Total.	Voluntary.	By certificate.	Total.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Patna ...	Gaya	Gaya district	35,987	1,415	37,402	20,522	15,149	35,671	1,047	348	1,395	37,066	316	20	336
Chota Nagpur	Hazaribagh	Hazaribagh district	3,08,682	1,38,224	4,46,906	2,61,670	46,895	3,08,565	1,37,969	255	1,38,224	4,46,789	117	...	117
Ditto	Palamau	Palamau district	1,75,620	40,010	2,15,630	1,36,393	27,338	1,63,731	39,916	27	39,943	2,03,674	41,940	67	42,007
Tirhut ...	Champaran	Champaran district	2,26,063	1,16,143	3,42,206	1,23,589	11,068	1,34,657	1,15,014	593	1,15,607	2,50,264	97,406	536	91,942

APPENDIX V.

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1918.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
																Rs.
Patna Division.																
Patna ...	45 Estates ...	48,970·11	8,565	14	44	295	417	2	4	1	...	312	465	9·07	2,003·53	25 to 400
Shahabad ...	27 Estates ...	164,727·40	20,644	190	112	504	14	26	20	...	2	720	148	4·20	1,234·62	20 to 125
Gaya ...	10 Estates ...	63,948·23	5,275	18	72	127	3	1	5	...	1	146	81	4·30	988·51	30 to 300
Tirhut Division.																
Darbhanga ...	Bakhtiarpur ...	1,104·95	538	2	8	10	1	1	...	...	...	13	9	4·08	56·95	100
Do. ...	Hardaspur ...	309·60	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Saran ...	Makhdumganj ...	222·65	134	2	...	5	...	...	5	...	1	7	6	9·70	2·37	104
Do. ...	Mudha ...	360·11	254	...	1	...	18	...	...	...	...	...	19	7·48	·35	640
Do. ...	Ramdaschak ...	2·25	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Deopura ...	22·59	41	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kaithwalia ...	82·32	74	...	...	1	...	...	...	...	...	1	...	1·35	...	...
Do. ...	Bangra ...	975·73	224	...	...	2	4	...	...	...	...	2	4	2·67	...	...
Bhagalpur Division.																
Monghyr ...	Diara and other Estates.	66,300	13,520	8	18	42	21	...	2	...	...	50	41	·67	500·52	55 to 155
Bhagalpur ...	Diara Estates ...	23,360·32	2,217	28	22	1	...	...	...	...	...	29	22	2·30	236·75	50
Do. ...	Sadr Khas Mahal ...	209·73	15	...	...	2	...	...	...	...	...	2	...	13·33	17·33	...
Do. ...	Madhipura ...	3,358·33	732	3	9	19	...	...	...	...	...	22	9	4·23	41	60
Do. ...	Supaul ...	4,171·75	274	1	...	3	...	...	...	...	...	4	...	1·45	74·10	1
Do. ...	Railway B. class land	253·66	123	2	2	1	...	...	...	...	...	3	2	4·06	7·96	50
Do. ...	Bengal and North-Western Railway lands.	490·05	150	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Railway land in Supaul Subdivision.	629·96	65	...	...	...	...	...	...	...	...	...	...	...	...	...
Santal Parganas ...	7 Estates ...	193,497·62	4,497	91	55	207	2	3	...	...	1	301	58	7·98	184·80	48 to 1500
Purnea ...	Belwa Harinkhori...	4,881·26	1,364	1	2	4	...	...	...	...	...	5	2	·51	59·38	33
Do. ...	Bagmara ...	1,834·26	105	3	...	6	...	...	...	...	...	9	...	8·57	44·06	18
Chota Nagpur Division.																
Ranchi ...	Barkagarh ...	67,394·62	7,689	42	...	204	...	...	...	...	...	246	...	3·19	...	250
Do. ...	Patia ...	5,185·84	746	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Silum	3,058·36	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Doranda ...	259·97	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kadru	140·39	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Hinu	114·71	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Kusai	87·82	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Hazaribagh ...	Kharagdiha ...	47,261	1,858	...	...	136	...	...	...	...	...	136	...	7·31	1,095·19	...
Do. ...	Kodarma ...	36,463·02	3,317	4	2	84	151	...	...	2	1	90	154	7·35	756·24	200
Do. ...	Hata ...	7,270·37	2,209	8	5	...	7	...	...	...	...	8	12	·90	18·39	50
Palamau ...	Palamau Government Estates.	272,426·27	17,297	...	...	628	589	...	2	...	...	628	591	7·04	7,105·78	...
Orissa Division.																
Sambalpur ...	Gaontiahi ...	853,071·74	39,207	104	511	1,010	59	7	65	35	21	1,156	656	4·62	13,639·85	35
Do. ...	Raiyatwari ...	8,137·90	317	...	...	6	...	...	...	...	...	6	...	1·89	210·70	...
Balasore ...	Nayanand Birso ...	17,987	11,573	73	333	238	177	15	10	5	9	331	529	7·43	281	73
Do. ...	Chandbali ...	178	130	...	1	...	...	...	...	...	...	...	1	·76	·17	77
Do. ...	Bhadrak Salt Gola	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. ...	Bichitrapur ...	3,546·31	1,033	8	6	...	...	...	1	...	1	8	8	1·54	30·03	50
Puri ...	Khurda ...	5,754·95	218,430	2,459	4,791	1,555	310	38	61	60	94	4,112	5,256	4·28	9,260·75	231
Do. ...	Kodhar ...	5,276·52	1,398	4	25	2	...	...	...	...	...	6	25	2·21	15·43	100
Do. ...	Balukhand ...	573·67	326	7	...	1	...	...	...	...	...	8	...	2·45	2·52	1,200
Angul ...	Angul ...	577,376	33,525	10	64	541	1,287	...	22	1	8	552	1,381	5·76	88·17	762·7
	Total ...	3,061,021·39	3,98,026	3,082	6,083	5,634	3,060	93	197	104	139	8,913	9,479	4·02	37,956·45	...

APPENDIX V.

[*See* Chapter III of the Report.]

Showing Mutations in Tenants' Rights for the year ending 30th September, 1918.

WARDS' ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*) + (*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
1	2	3	4	5		6		7		8		9		10	11	12
				a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*			
Patna Division.																
Shahabad	Bijaigarh ...	4,404·48	734	2	...	4	...	...	...	...	...	6	...	·81	40·63	150
Do.	Chougain ...	7,749·76	2,951	1	...	32	...	...	...	...	...	33	...	1·11	201·84	120
Do.	Surajpura No. II ...	5,202·80	2,326	...	...	9	...	...	...	...	...	9	...	·38	29·15	...
Gaya	Muksudpur ...	31,171	5,218	19	51	85	3	28	4	...	5	132	63	3·71	987	...
Do.	Hariharnath ...	3,433	2,685	1	6	154	...	...	5	...	...	155	11	6·18	239	...
Tirhut Division.																
Darbhanga... ...	Narhan ...	195	23,501	85	349	212	89	...	35	2	1	299	474	3·28	548·34	101
Do.	Sandha	2,795	1,469	...	...	2	...	...	...	...	...	2	...	·13	...	...
Muzaffarpur, Champaran and Saran.	Bettiah ...	1,375,038·20	230,583	91	18	615	...	...	...	3	...	709	18	·31	124·10	118
Muzaffarpur ...	Sursand No. I ...	14,586·56	6,874	47	467	154	...	2	...	...	...	203	467	9·74	595·2	60
Do. ...	Do. No. II ...	6,045·54	3,203	26	269	100	...	...	...	...	...	126	269	12·33	357·41	72
Saran and Muzaffarpur	Majhauli ...	21,326	4,786	1	2	...	...	1	...	1	...	3	2	·10	12·30	200
Do. ...	Mushrakh ...	8,709	5,352	3	...	...	...	...	..	...	...	3	...	·05	3·46	200
Do. ...	Tirgunanand Estate	5,525	1,818	2	1	1	...	...	...	...	...	3	1	·22	6·53	200
Bhagalpur Division.																
Monghyr	Babadurpur ...	60,339	11,940	76	71	357	...	12	...	...	...	445	71	4·32	510	52
Do.	Shakarpura ...	1,073	306	6	2	19	...	...	...	...	...	25	2	6·81	15	63
Santal Parganas ...	Sankara ...	51,712	157	...	...	15	...	...	...	...	...	15	...	9·55	6,548	...
Do. ...	Punasi ...	21,542	251	...	...	3	2	...	...	...	...	3	2	1·99	50·3	...
Bhagalpur	Sonbarsa ...	65,044·12	13,723	57	...	523	...	...	...	...	...	580	...	4·2	3,158·8	...
Do.	Barari ...	56,611	25,332	95	18	488	1	...	...	...	...	583	19	2·37	1,502	25
Do.	Laguna ...	7,350	1,035	8	35	9	...	3	14	...	1	20	50	3·6	161	50
Do.	Shahpur ...	7,009	1,506	6	8	2	...	1	1	...	...	9	9	1·1	77	50
Do.	Sukhpur ...	18,357·86	4,066	2	25	...	...	...	5	...	...	2	30	·78	115·37	30
Do.	Bhupendra Narain Estate.	65,344	11,657	67	298	20	5	3	10	...	1	90	314	3·46	856	40
Orissa Division.																
Sambalpur	Malguzari ...	74,380·16	2,891	10	33	87	6	1	10	3	...	101	49	5·2	1,205·99	20
Balasore	Kaupur ...	24,258	8,335	65	145	12	5	...	...	3	2	80	152	2·78	185	63
Do.	Sarbarakari tenure in Mahal Mouodila.	..	...	1	...	...	...	...	...	...	...	1	...	...	137	6
Do.	Nilgiri	19,028·09	5,847	57	152	...	...	...	1	...	...	57	153	3·59	192·73	44
Do.	Inchari	1,402·69	444	2	6	...	...	...	...	...	...	2	6	1·80	6·00	53
Puri	Parikud ...	44,276	6,477	134	201	536	10	2	4	...	...	692	215	14·	717·34	25
Do.	Jagirmahal ...	33,176·42	4,919	73	10	690	...	12	...	...	...	775	10	15·9	175	75
Cuttack	Dompara ...	53,496·46	9,252	10	68	260	302	...	...	...	...	270	370	6·91	38·99	...
Do.	Darpan ...	68,727	26,276	94	202	376	439	...	...	...	...	470	641	4·23	1,746	29
Chota Nagpur Division.																
Hazaribagh... ...	Ramgarh ...	2,831,731	14,746	...	...	55	...	...	...	...	...	55	...	·37	395·31	...
Manbhum	Patkum ...	190,537	8,988	9	...	1	...	...	...	...	...	10	...	·25	15	20
Do.	Naro ...	9,23,677	953	1	...	1	...	...	...	...	...	2	...	·20	10	21
Do.	Tinsaya ...	12,487	115	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Dhadka ...	12,935	414	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Matha ...	13,375	347	1	...	...	...	...	...	...	...	1	...	·28	3	15
Do.	Barabhum ...	410,772	5,892	...	2	...	...	...	...	...	...	...	2	·03	6	16
Ranchi	Pariba ...	34,929	170	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Barki Beura ...	18,592	212	...	...	2	...	...	...	...	...	2	...	·94	...	...
Do.	Biru ...	626,094	2,152	...	...	18	...	...	...	...	...	18	...	·85	...	...
Do.	Anabiri ...	8,290	224	...	...	4	...	...	...	...	...	4	...	1·7	...	...
Do.	Bhargaon ...	2,693	203	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Loro ...	7,023	264	...	...	1	...	...	...	...	...	1	...	·37	...	...
Do.	Redwa ...	31,360	165	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Badla ...	7,928	569	...	...	7	...	...	...	...	...	7	...	1·2	...	...
Do.	Masmano ...	16,023	715	...	...	9	...	...	...	...	...	9	...	1·2	...	...
	Carried over ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX V—*concld.*

WARDS' ESTATES.

Division and District.	Estate.	Total area of the estate in acres.	Total number of tenancies.	Number of mutations registered.										Percentage of mutations to total number of tenancies, col. 9 (*a*)+(*b*) on col. 4.	Total area in acres transferred.	Average price per acre of land sold.
				Sale.		Succession.		Partition.		Gift.		Total.				
				Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.			
				5		6		7		8		9				
1	2	3	4	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*	10	11	12
Chota Nagpur Division—concld.																
	Brought forward ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ranchi	Hatma ...	25,216	657	...	...	39	...	...	...	...	...	39	...	5·9	...	...
Do.	Chakla ...	5,901	303	...	...	14	...	...	...	...	...	14	...	4·6	...	...
Do.	Tupudana ...	5,328	372	...	...	9	...	...	...	...	...	9	...	2·4	...	...
Do.	Jonha ...	21,018	426	...	...	13	...	...	...	...	...	13	...	3·0	...	...
Do.	Jeria ...	3,35,738	3,304	...	...	36	...	...	...	...	...	36	...	1·0	...	...
Do.	Hazam ...	3,498	172	...	...	3	...	...	...	...	...	3	..	1·7	...	...
Do.	Burhadih ...	18,875	398	...	...	20	...	...	...	...	...	20	...	·50	...	...
Do.	Oreydaru ...	3,940	187	...	...	7	...	...	...	...	...	7	...	3·7	...	...
Do.	Jamudag ...	6,654	324	...	...	11	...	...	...	...	...	11	...	3·3	...	...
Do.	Doahatu ...	15,360	427	...	...	7	...	...	...	...	...	7	...	1·6	...	...
Do.	Tamar ...	3,31,220	1,057	...	...	32	...	...	...	...	...	32	...	3 0	...	...
Do.	Mardhan ...	18,992	397	...	...	7	...	...	...	...	...	7	...	1·7	...	...
Do.	Pola ...	3,859	195	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Kulmunda ...	20,082	298	...	...	5	...	...	...	...	...	5	...	1·6	...	...
Do.	Nare Kela ...	3,398	101	...	...	2	...	...	...	...	...	2	...	1·9	...	...
Do.	Armai ...	2,65,258	3,442	...	...	35	...	...	...	...	...	35	...	1·0	...	...
Do.	Jingi ...	12,461	186	...	..	...	...	...	...	...	...	...	...	...	...	...
Do.	Harmu ...	1,259	71	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Banapiri ...	1,625	248	...	...	...	...	...	...	...	..	...	...	...	...	...
Do.	Chorea ...	7,186	434	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Guru ...	3,424	201	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	Bajpur ...	8,111	438	...	...	...	...	...	..	...	...	...	...	...	...	...
Do.	Barunda ...	11,802	618	...	...	53	...	...	...	...	...	53	...	8·5	...	...
Do.	Janampiri ...	3,623	264	...	...	16	...	...	...	...	...	16	...	6·0	...	...
	Total ...	84,52,530·14	4,72,032	1,052	2,439	5,192	862	65	89	12	10	6,321	3,400	2·05	20,972·39	...

APPENDIX VI.

[*See* Chapter III of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1918.

GOVERNMENT ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Patna	Government Estates	22	51·78	22	54·78
Shahabad	Ditto ...	28	4·94	20	20·40
Gaya	Ditto ...	11	5·50	12	17·17
BHAGALPUR DIVISION.					
Bhagalpur	Madhipura ...	1	48·80	1	48·80
Santal Parganas ...	Government Estates	31	1·80	17	1·23
Monghyr	Diara and other Estates.	82	451·03	80	293·03
ORISSA DIVISION.					
Sambalpur	Gaontiahi ...	1	3·23	...	...
Balasore	Nayanand Birso ...	2	5 00	...	...
Do.	Chandbali ...	1	2·00	1	2·00
Do.	Bichitrapur ...	13	9·63	13	9·63
Puri	Khurda ...	63	49·90	46	45·02
Angul	Angul ...	189	485·09	52	172·66
CHOTA NAGPUR DIVISION.					
Ranchi	Barkagaih ...	...	...	14	76·71
Hazaribagh	Kharagdiha ...	1	·60	1	0 60
Do.	Kodarma ...	11	30·32	10	29·79
Do.	Hata ...	1	0 04	1	0·04
Palamau	Government Estates	439	1,602·79	188	656·22
	Total ...	896	2,755·48	478	1,428·08

APPENDIX VI—*concld.*

[*See* Chapter III of the Report.]

Showing Resettlement of Vacant Tenancies during the year ending 30th September, 1918.

WARDS' ESTATES.

Division and District.	Estate.	Vacant Tenancies to be resettled during the year.		Vacant Tenancies resettled during the year.	
		Number.	Area in acres.	Number.	Area in acres.
1	2	3	4	5	6
PATNA DIVISION.					
Shahabad	Bijaigarh ...	7	29·91	5	28·16
Do.	Chougain ...	134	259·1	48	109·25
Do.	Surajpura No. II...	64	269·29	1	10·3
Gaya	Maksudpur ...	27	104	22	86
Do.	Hariharnath ...	3	6	3	6
TIRHUT DIVISION.					
Darbhanga	Narhan ...	208	640·23	35	67·14
Muzaffarpur, Champaran and Saran.	Bettiah ...	100	194·3	94	194·3
Muzaffarpur... ...	Sursand No. I ...	9	4·40	4	·99
Do.	Sursand No. II ...	12	6·00	9	4·71
Saran and Muzaffarpur ...	Majhauli ...	11	19·2	7	6·66
Do.	Mashrakh ...	1	·5	...	...
BHAGALPUR DIVISION.					
Monghyr	Bahadurpur ...	338	1190	150	262
Do.	Shakarpura ...	6	2·85	3	1·30
Bhagalpur ...	Sonbarsa ...	1,539	3,646·18	82	273·67
Do.	Barari ...	341	199·86	29	7·63
Do.	Lagma ...	3	2·4	1	·84
Do.	Shahpur ...	5	3·48	...	...
Do.	Sukhpur ...	109	113 90	8	38·13
Do.	Bhupendra Narayan Ward's Estate.	470	1,291·55	74	230·96
ORISSA DIVISION.					
Sambalpur	Malguzari ...	1	0·72	...	...
Balasore	Kaupur ...	18	36	17	30
Puri	Parikud ...	63	149·30	44	106·90
Do.	Jagirmahal ...	31	166·44	11	25·33
Cuttack	Dompara ...	5	7·63	5	7·15
Do.	Darpan ...	217	180	30	37
CHOTA NAGPUR DIVISION.					
Hazaribagh	Ramgarh ...	295	1,032·44	7	25·14
Manbhum	Patkum ...	44	178·5	...	...
Do.	Naro ...	28	57·5	...	...
Do.	Tinsaya ...	4	36·25	...	...
Do.	Dhadka ...	18	22	...	...
	Total ...	4,111	11,028·79	689	1,518·94

APPENDIX VII.

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1918.

GOVERNMENT ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Patna ...	Government Estates	279	955·18	Otherwise.
Shahabad ...	Ditto ...	88	89·02	
Gaya ...	Ditto ...	41	29·88	
Tirhut Division.				
Darbhanga ...	Bakhtiarpur ...	5	·41	Otherwise.
Do. ...	Hardaspur ...	11	10	
Saran ...	Bangra ...	8	1·47	
Bhagalpur Division.				
Bhagalpur ...	Diara Estate ...	3	33·81	Otherwise.
Do. ...	Madhipura ...	3	·97	
Do. ...	Supaul ...	44	314·25	
Do. ...	Railway land in Supaul.	23	20·55	
Santal Parganas	Government Estates	2	0·30	Settlement rates.
Monghyr ...	Diara Estate ...	3	·25	Otherwise.
Orissa Division.				
Sambalpur ...	Gaontiahi ...	328	467·43	Otherwise.
Balasore ...	N va nd Birso...	4	2·61	
Do. ...	Bichitrapur ...	8	9·12	Settlement rates.
Puri ...	Khurda ...	327	832·02	
Do. ...	Balukhand ...	5	1·23	
Angul ...	Angul ...	15	713·43	
Chota Nagpur Division.				
Ranchi ...	Barkagarh ...	146	178·03	Settlement rates.
Do. ...	Dorenda ...	14	·61	
Hazaribagh ...	Kodarma ...	50	214·19	Otherwise.
Do. ...	Hata ...	2	13·59	Settlement rates.
Palamau ...	Government Estate	1	·66	
	Total ...	1,500	3,889·01	

APPENDIX VII—*concld.*

[*See* Chapter III of the Report.]

Showing new settlements of Waste Lands during the year ending 30th September, 1918.

WARDS' ESTATES.

Division and District.	Estate.	Total number of new tenancies on new lands settled.	Total area of such tenancies (acres).	Remarks. (Explanatory of the mode of settlement, *i.e.*, whether rent was fixed according to settlement rates or otherwise.)
1	2	3	4	5
Patna Division.				
Shahabad ...	Surajpura II ...	1	10·3	Otherwise.
Gaya ...	Maksudpur ...	50	59	
Do. ...	Hariharnath ...	7	20	
Tirhut Division.				
Darbhanga ...	Narhan ...	30	47·05	Otherwise.
Muzaffarpur, Champaran and Saran.	Bettiah ...	246	451·40	Village rates.
Muzaffarpur ...	Sursand No. I ...	174	37·60	Otherwise.
Do. ...	Sursand No. II ...	82	15·25	
Saran Muzaffarpur	Majhauli ...	17	17·58	
Do. ...	Mashrakh ...	31	18·46	
Do. ...	Tirgunanand Estate	22	22·49	
Bhagalpur Division.				
Monghyr ...	Bahadurpur ...	315	569	Otherwise.
Do. ...	Shakarpura ...	1	·50	
Bhagalpur ...	Sonbarsa ...	135	242·19	
Do. ...	Barari ...	65	84·30	
Do. ...	Lagma ...	4	1·24	
Do. ...	Shahpur ...	1	·44	
Do. ...	Sukhpur ...	7	7·44	
Do. ...	Bhupendra Narain Estates.	82	192·12	
Orissa Division.				
Sambalpur ...	Malguzari ...	10	12·82	Otherwise.
Balasore ...	Kaupur ...	20	7·16	
Do. ...	Nilgiri ...	47	211·09	
Do. ...	Inchari ...	9	5·08	
Puri ...	Parikud ...	10	8·40	Village rate.
Do. ...	Jagirmahal ...	8	28·47	Settlement rates.
Cuttack ...	Dompara ...	388	374·61	
Do. ...	Darpan ...	144	211	
Chota Nagpur Division.				
Hazaribagh ...	Ramgarh ...	199	519·33	Settlement rates.
Manbhum ...	Patkum ...	4	8	
Ranchi ...	Jonha ...	2	1·5	
Do. ...	Hatma ...	11	27·	
Do ...	Barhadih ...	1	5·	
Do· ...	Loahatu ...	1	4·	
	Total ...	2,124	3,219·82	

APPENDIX VIII.

[*See* Chapter III of the Report.]

Showing the results of the inspection of rent-rolls for the year ending 30th September, 1918.

Government Estates.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Patna	Government Estates ...	72	8,505	72	8,381	98·85	738	59	5,519	64·43	29
Shahabad ...	Do. ...	368	23,334	368	23,334	100	316	342	13,011	58·33	94
Gaya	Do. ...	138	5,916	121	5,581	94·33	129	121	5,586	94·42	60
Tirhut Division.											
Darbhanga ...	Bakhtiarpur ...	2	538	2	538	100	...	...	...	...	...
Do.	Hardaspur ...	1	11	1	11	100	...	...	...	...	...
Saran	Makhdumganj ...	3	134	3	134	100	...	3	134	100	...
Do.	Mudha	2	254	2	254	100	...	1	203	79·92	...
Do.	Ramdaschak ...	1	4	1	4	100	...	...	...	...	...
Do.	Deopura	1	41	1	41	100	...	...	...	...	...
Do.	Kaithwalia ...	1	74	1	74	100	...	...	...	...	...
Do.	Bangra	8	224	8	224	100	...	8	25	11·16	...
Bhagalpur Division.											
Bhagalpur ...	Diara Estates ...	6	2,217	6	2,217	100	35	6	2,217	100	35
Do. ...	Sadr Khas Mahals ...	6	15	6	15	100	1	6	15	100	1
Do. ...	Madhipura ...	15	732	15	732	100	...	15	732	100	...
Do. ...	Supaul	15	274	15	274	100	...	12	200	72·99	...
Do. ...	Railway B. class lands	21	123	21	123	100	8	21	123	100	
Do. ...	Railway land in Supaul Subdivision.	13	65	13	65	100	...	7	38	58·46	...
Do. ...	B. N.-W. Railway lands.	25	150	25	150	100	...	25	150	100	...
Santal Parganas ...	Damin-i-koh ...	22	985	16	91	9·23	...	...	...	...	...
Do. ...	Hiranpur ...	1	153	1	153	100	...	1	15	9·80	...
Do. ...	Amrapara ...	1	74	1	74	100	...	1	5	6·75	...
Do. ...	Sahibgunj ...	8	2,573	8	2,573	100	10	8	1,511	58·72	115
Do. ...	Other Khas Mahals ...	9	560	9	560	100	...	9	76	13·57	...
Do. ...	Nayabazar ...	1	31	1	31	100	...	1	5	16·12	...
Do. ...	Railway B. class lands	9	112	9	112	100	...	9	15	13·39	...
Do. ...	Bijaypur	1	9	1	9	100	...	1	5	55·55	...
Purnea ...	Belwa Harinkhori ...	6	1,364	6	276	20·23	...	6	224	16·42	...
Do. ...	Bagmara	1	74	1	20	27·02	...	1	26	35·13	...
Do. ...	Laukahi	1	64	1	55	85·93	...	1	...	...	...
Do. ...	Sohari Sobhai ...	1	30	1	30	100	...	1	...	...	...
Monghyr ...	Diara and other Estates.	79	13,520	74	5,410	40·01	308	62	2,706	20·01	122
Orissa Division.											
Sambalpur ...	Gaontiahi ...	811	39,207	769	37,372	95·31	1,812	23	1,464	3·73	142
Do. ...	Raiyatwari ...	17	317	15	252	79·49	8	...	...	...	...
Balasore ...	Nayanand Birso ...	104	11,573	...	...	...	...	12	2,046	17·67	377
Do. ...	Chandbali ...	1	130	...	...	...	...	...	...	...	...
Do. ...	Bhadrak Salt Gola ...	1	1	...	...	...	...	...	...	...	...
Do. ...	Bichitrapur ...	6	1,033	6	123	11·90	15	3	56	5·42	6
Puri ...	Khurdha ...	1,377	218,430	901	11,415	5·22	...	...	...	...	...
Do. ...	Kodhar	5	1,398	5	1,398	100	...	4	100	7·16	...
Do. ...	Balukhand ...	1	326	...	...	...	...	1	326	100	...
Angul ...	Angul	632	33,525	611	33,240	99·14	1,637	63	7,171	21·39	1
Cuttack ...	Banki	144	24,526	125	12,600	51·37	...	124	1,260	5·13	...

APPENDIX VIII—*continued.*

GOVERNMENT ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division.											
Ranchi ...	Barkagarh ...	89	7,689	87	7,225	93·96	...	45	3,580	46·56	...
Do. ...	Patia	9	746	9	746	100	...	2	249	33·37	...
Do. ...	Silum	1	81	1	81	100	...	1	36	44·44	...
Do. ...	Doranda	1	63	1	63	100	...	1	63	100	...
Do. ...	Kadru	1	40	1	40	100	...	1	40	100	...
Do. ...	Hinu	1	3	1	3	100	...	1	3	100	...
Do. ...	Kusai	1	3	1	3	100	...	1	3	100	...
Hazaribagh ...	Kharagdiha ...	146	1,858	95	1,025	55·16	120	35	326	17·54	...
Do. ...	Kodarma	101	3,317	51	2,387	71·96	10	...	...	...	...
Do. ...	Hata	22	2,209	18	1,300	58·85	6	12	360	16·29	...
Palamau ...	Government Estates	400	17,297	335	14,330	82·84	...	63	2,956	17·08	...
	Total ...	4,709	425,992	3,842	175,149	41·11	5,143	1,119	53,180	12·48	999

APPENDIX VIII—*continued.*

WARDS' ESTATES.

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Patna Division.											
Shahabad ...	Bijaigarh... ...	15	734	...	...	...	...	15	440	59·94	...
Do. ...	Chougain ...	53	2,951	...	...	...	...	53	1,697	57·50	...
Do. ...	Surajpura No. II ...	92	2,326	..	...	...	...	78	1,478	63·54	...
Gaya ...	Maksudpur ...	66	5,248	66	4,879	92·96	13	66	5,121	97·61	13
Do. ...	Hariharnath ...	55	2,685	55	2,411	89·79	11	55	2,571	95·75	13
Tirhut Division.											
Darbhanga ...	Narhan ...	195	23,501	195	23,501	100	1,445	25	4,206	17·89	295
Do. ...	Sandha	27	1,459	25	1,119	76·69	326	...	...	...	...
Muzaffarpur ...	Bettiah ... Kham-thica...	447	30,512	182	4,998	16·38	...	215	23,462	76·89	...
Saran		1,412	200,310	...	...	...	...	...	...	...	...
Champaran ...											
Muzaffarpur ...	Sursand No. I ...	155	6,874	155	6,874	100	...	50	1,653	24·04	...
Do. ...	Ditto No. II ...	88	3,203	88	3,203	100	...	34	1,063	33·18	...
Saran and Muzaffarpur.	Majhauli	68	47,740	...	...	...	...	...	...	...	...
Do. ...	Mushrakh... ...	52	5,321	...	...	...	...	...	...	...	...
Do. ...	Tirguna Nand Estates	30	1,618	...	...	...	...	...	...	...	...
Bhagalpur Division.											
Monghyr ...	Bahadurpur ...	57	11,040	57	5,970	50	...	...	...	...	...
Do. ...	Shakarpura ...	5	396	5	297	75	...	...	...	...	...
Santal Parganas	Saukara	109	157	109	157	100	...	...	...	...	...
Do. ...	Punasi	69	251	69	251	100	...	...	...	...	...
Bhagalpur ...	Sonbarsa	124	13,722	124	13,722	100	...	124	13,722	100	...
Do. ...	Barari	583	25,332	583	25,332	100	...	583	25,332	100	...
Do. ...	Lagma	22	1,935	22	1,935	100	...	22	1,935	100	...
Do. ...	Shahpur	27	1,506	27	1,506	100	...	27	1,506	100	...
Do. ...	Sukhpur	42	4,066	42	4,066	100	...	42	4,066	100	38
Do. ...	Bhupendra Narain Wards' Estate.	121	11,657	100	8,935	76·64	1,135	...	...	...	...
Orissa Division.											
Sambalpur ...	Malguzari ...	92	2,891	92	2,891	100	132	...	...	...	...
Balasore ...	Kaupur	125	8,335	...	...	...	...	...	...	...	...
Puri	Parikud	65	6,477	60	6,477	100	...	60	3,000	46·31	60
Do.	Jagirmahal ...	67	4,919	66	4,919	100	...	30	2,000	40·60	...
Cuttack ...	Dompara	28	7,203	28	7,203	100	...	26	615	8·53	...
Do. ...	Darpan	352	26,276	111	11,331	43·12	147	103	11,010	41·90	74
Chota Nagpur Division.											
Hazaribagh ...	Ramgarh	3,706	14,746	...	...	...	...	...	...	...	...
Manbhum ...	Patkum	262	3,988	262	3,988	100	10	25	324	8·12	10
Do. ...	Naro	15	953	15	953	100	2	...	...	...	2
Do. ...	Tinsaya	24	115	24	115	100	...	4	65	56·51	...
Do ...	Dhadka	30	414	30	414	100	...	6	115	27·77	...
Do. ...	Matha	19	347	19	347	100	1	6	114	32·85	1
Do. ...	Barabhum... ...	273	5,392	273	5,392	100	2	60	1,615	29·95	2
Ranchi ...	Arnai	126	3,442	90	2,000	58·1	...	20	450	13·07	...
Do.	Biru	185	2,112	98	1,220	57·7	...	41	231	10·9	...
Do.	Kulmunda ...	12	298	8	211	70·8	...	3	36	12·0	...
Do.	Masmano	18	715	10	225	31·4	...	6	91	12·7	...
Do.	Bajpur	7	438	6	301	68·7	...	3	38	8·6	...

APPENDIX VIII—*concluded.*

WARDS' ESTATES—*concluded.*

Division and District.	Estate.	Total number of villages in the estate.	Total number of tenants.	Checked by Tahsildars and other subordinate agency.				Checked by Managers and other superior agency.			
				Number of villages.	Number of tenants.	Percentage of tenants checked to total.	Number of unreported mutations detected.	Number of villages.	Number of tenants.	Percentage of tenants.	Number of unreported mutations detected.
1	2	3	4	5	6	7	8	9	10	11	12
Chota Nagpur Division—concld.											
Ranchi ...	Jeria	309	3,304	191	1,912	57·8	...	29	301	9·3	...
Do.	Parba	39	170	16	79	46·4	...	3	35	20·5	...
Do.	Barkibeura ...	9	212	6	171	80·6	...	5	60	28·3	...
Do.	Jamudag	43	324	28	275	84·8	...	5	79	24·3	...
Do.	Oreydaru	1	187	1	125	66·8	...	1	20	10·6	...
Do.	Sarjamdih... ...	34	752	27	551	73·2	...	6	111	14·7	...
Do.	Janampiri... ...	22	264	15	188	71·2	...	4	65	24·6	...
Do.	Loro	11	264	6	150	56·8	...	4	45	17·04	...
Do.	Tamar	79	1,057	70	914	86·4	...	14	100	9·4	...
Do.	Burhadih	12	398	10	300	75·3	...	6	89	22·3	...
Do.	Hatma	36	657	25	402	61·1	...	6	100	15·2	...
Do.	Hazam	1	172	1	141	81·9	...	1	50	29·06	...
Do.	Tupudana ...	9	372	8	281	75·5	...	4	75	20·1	...
Do.	Loahatu	10	427	8	287	67·2	...	4	90	2·1	...
Do.... ...	Mardhan	21	397	19	275	69·2	...	5	66	16·6	...
Do.	Redwa	4	165	3	136	82·4	...	3	41	24·8	...
Do.	Barenda	22	678	17	461	67·9	...	5	125	18·4	...
Do.	Chakla	5	303	4	250	82·5	...	3	41	13·5	...
Do.	Guru	3	201	3	185	92·03	...	2	25	12·4	...
Do.	Jonha	27	426	25	300	70·4	...	5	89	20·8	...
Do.	Bhargaon	6	203	5	141	69·4	...	2	49	24·1	...
Do.	Harmu	1	71	1	55	77·4	...	1	16	22·5	...
Do.	Chorea	12	434	10	350	80·6	...	4	39	8·9	...
Do.	Pola	5	195	4	151	77·4	...	2	27	13·8	...
Do.	Banapiri	3	248	3	141	56·8	...	1	17	6·8	...
Do.	Jingi	16	198	11	135	68·1	...	3	27	13·6	...
Do.	Narikela	3	101	2	65	64·3	...	1	21	20·7	...
Do.	Badla	7	569	5	325	57·1	...	6	61	10·7	...
Do.	Anabiri	7	224	5	150	66·9	...	4	30	13·3	...
	Total ...	10,077	5,07,678	3,625	1,66,039	32·70	3,224	1,921	1,09,859	21·63	503

APPENDIX IX.

[*See* Chapter IV, Part I of the Report.]

Result of Inspection of Boundary marks during the year 1917-1918.

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
GOVERNMENT ESTATES AND TEMPORARILY SETTLED ESTATES.										
Patna Division.										
Shahabad	105	43	1,146	1,146	1,100	...	46	6	Cost of restoration met from khas mahal funds.	
Tirhut Division.										
Saran	15	15	315	343	315	...	...	...	...	
Champaran	Not reported.			8	8	...	...	...	...	
Darbhanga	2	2	56	56	56	..	...	...	...	
Muzaffarpur	4	4	649	649	606	28	26	...	...	
Bhagalpur Division.										
Bhagalpur	27	20	114	85	37	...	48	12	Cost of restoration met from khas mahal funds.	
Purnea	Not reported.			105	105	...	...	...	...	
Santal Parganas ...	8(a)	8	4,222	155	155	...	...	...	...	
Orissa Division.										
Cuttack	5,0[illegible]2	5,0[illegible]2	9,858	7,827	7,538	...	289	2	Rs. 1-8-0. Realized from tenants.	
Balasore	Not reported.			1,903	1,892	...	18	...	...	
Puri	501	501	7,175	7,175	7,162	...	13	13	Cost met from Improvement Grant.	
Angul and Khondmals ...	1	2	2,749	530	529	1	...	1	...	
Sambalpur	1,938(b)	1,914	59,807	59,807	59,755	52	...	52		
Chota Nagpur Division.										
Hazaribagh	3	3	1,873	1,873	1,858	15	...	...	...	
Ranchi	7	7	275	240	240	...	...	...	...	
Palamau	400	288	17,125	17,125	13,776	3,110	239	3,339	Rs. 46. Cost of restoring 10 trijunction pillars. Met from khas mahal Fund.	
Singhbhum	1	1	2,745	2,745	2,443	302	...	28	Rs. 30-13-6.	
Total ...	8,754	8,496	115,153	101,741	97,594	3,507	679	3,443	...	
WARDS' ESTATES.										
Tirhut Division.										
Saran	230	230	7,381	1,702	1,677	13	12	...	...	
Champaran	1,692	1,692	Not known.	8,170	5,358	944	1,868	...	Rs. 155 was spent by Manager, Bettiah Estate, in purchasing stone pillars.	

(a) Surveyed under Regulation III of 1872.

(b) Surveyed under Section 27 of the Land Revenue Act of Central Provinces.

APPENDIX IX—*concluded.*

Division and District.	Total number of estates surveyed under the Survey or Tenancy Acts.	Total number of estates in which permanent boundary marks were erected.	Number of marks erected in the estates mentioned in column 3.	Number of marks inspected during the year under report.	Result of inspection of the marks shown in column 5.			Number of damaged or missing marks restored.	Cost of restoration and how met.	Result of prosecution, if any.
					Number in fair order.	Number damaged.	Number missing.			
1	2	3	4	5	6	7	8	9	10	11
WARDS' ESTATES—*concld.*										
Darbhanga	196	196	1,048	1,048	1,015	1	32	...	...	
Muzaffarpur	24	66	224	224	224	...	...	...	...	
Bhagalpur Division.										
Bhagalpur	726	722	3,450	1,824	1,751	2	71	...	...	
Orissa Division.										
Cuttack	2	2	420	420	420	...	...	...		
Chota Nagpur Division.										
Hazaribagh	Not reported.		...	1,208	1,185	23	...	19	...	
Ranchi	35	35	1,276	1,276	1,276	...	...	...	...	
Manbhum	2	2	1,640	1,640	857	781	2	783	Rs. 101-10. Met from Boundary marks Fund.	
Total ...	2,907	2,945	15,439	17,512	13,763	1,764	1,985	802	..	
ZAMINDARI ESTATES.										
Tirhut Division.										
Saran	5,813	5,813	Not known.	14,158	13,281	595	282	60	...	
Champaran	Not reported.			2,470	2,357	42	64	1 (Nepal boundary pillar.)	Rs. 23-0-9. Met from the budget under head "25 Political."	
Muzaffarpur	2,652	3,595	18,102	15,637	15,463	63	111	20	...	
Bhagalpur Division.										
Bhagalpur	2,725	2,725	5,386	4,116	3,811	35	270	2	Rs. 18-15-0. Met from Boundary Marks Fund.	
Santal Parganas ...	475(*a*)	475	15,098	2,495	2,435	3	57	10	Rs. 13-0-0. Paid by landlords and tanants.	
Orissa Division.										
Cuttack	Not reported.			1,789	1,789	1,709	...	80	4	
Chota Nagpur Division.										
Ranchi	1	1	6,341	3,658	3,624	30	4	28	...	
Singhbhum	2	2	4,664	4,664	4,638	26	...	...	...	
Total ...	11,668	12,611	51,380	48,987	47,318	801	868	125		
GRAND TOTAL ...	23,329	24,052	181,972	168,240	158,675	6,072	3,532	4,370		

(*a*) Surveyed under Regulation III of 1872.

N. B.—The figures against "Total" and "Grand Total" in columns 2 to 4 are not complete for want of figures in certain cases.

APPENDIX X.

Statement showing progress of Survey and Settlement work in the Province by districts and divisions up to 30th September, 1918.

District.	Total area of district (in square miles).			Area which has been cadastrally surveyed and for which a record-of-rights has been prepared or which has been settled under the Regulations up to 30th September, 1918. (in square miles).			Area covered by topographical survey or forest survey for which no record-of-rights has been prepared up to 30th September, 1918, (in square miles).			Area outstanding (in square miles).		
	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.	Permanently settled.	Not permanently settled.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13
Patna Division.												
Patna	2,002	119	2,121	1,947	119	2,066	55	...	55	...	...	...
Gaya	4,647	92	4,739	4,611	92	4,703	36	...	36	...	...	...
Shahabad	4,191	211	4,402	4,049	211	4,260	142	...	142	...	...	...
Divisional Total ...	*10,840*	*422*	*11,262*	*10,607*	*422*	*11,029*	*233*	...	*233*	...	...	...
Tirhut Division.												
Saran	2,633	41	2,674	2,439	41	2,480	194	...	194	...	...	...
Champaran	3,528	3	3,531	3,247	3	3,250	281	...	281	...	...	...
Muzaffarpur	3,004	31	3,035	3,002	...	3,002	2	31	33	...	...	...
Darbhanga	3,308	40	3,348	3,303	...	3,303	5	40	45	...	...	...
Divisional Total ...	*12,473*	*115*	*12,588*	*10,991*	*44*	*12,035*	*482*	*71*	*553*	...	...	..
Bhagalpur Division.												
Monghyr	3,742	95	3,837	3,722	95	3,817	20	...	20	...	...	...
Bhagalpur	4,116	42	4,158	3,716	42	3,758	400	...	400	...	...	...
Purnea	4,731	203	4,934	4,731	14	4,745	...	249	249	...	...	...
Santal Parganas	4,087	1,383	5,470	3,983	1,383	5,366	...	...	...	104	...	104
Divisional Total ...	*16,676*	*1,783*	*18,459*	*14,155*	*1,534*	*17,686*	*420*	*249*	*669*	*104*	...	*104*
Orissa Division.												
Cuttack	1,354	2,300	3,654	482	2,300	2,782	740	...	740	132	...	132
Balasore	385	1,700	2,085	165	1,700	1,865	220	...	220	...	...	...
Angul and Khondmals ...	...	1,702	1,702	...	609	609	...	223	223	...	800	800
Puri	499	2,000	2,499	19	2,000	2,019	456	...	456	24	...	24
Sambalpur	...	3,824	3,824	...	2,986	2,986	...	463	463	...	375	375
Divisional Total ...	*2,238*	*11,526*	*13,764*	*666*	*9,655*	*10,321*	*1,016*	*696*	*2,112*	*153*	*1,875*	*1,331*
Chota Nagpur Division.												
Hazaribagh	6,859	161	7,023	6,852	56	6,908	...	52	52	7	56	63
Ranchi	7,104	...	7,104	7,104	...	7,104	...	...	...	...	...	...
Palamau	4,231	613	4,844	3,732	...	3,733	28	319	347	470	294	264
Manbhum	3,872	275	4,147	934	...	934	...	...	...	2,938	275	3,213
Singhbhum	2,572	1,955	4,527	2,335	1,213	3,548	237	742	979	...	...	...
Divisional Total ...	*24,638*	*3,007*	*27,645*	*20,958*	*1,269*	*22,227*	*265*	*1,113*	*1,378*	*3,415*	*625*	*4,040*
Provincial Total ...	*66,855*	*16,853*	*83,718*	*57,377*	*12,924*	*74,298*	*2,416*	*2,129*	*4,945*	*3,672*	*2,500*	*5,475*

N. B.—The areas shown in this Appendix are approximate.

APPENDIX XI.

APPENDIX

Showing outturn of Traverse Surveys and of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets sent for publication.	Year of commencement of operations.	Area surveyed (in square miles), or number of sheets under preparation.		Balance remaining to be surveyed or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
I.—Traverse Surveys.							
District Surveys.							
Manbhum	Traverse ...	776	4,053	1907-08	732	2,280*	1,773
Miscellaneous Surveys.							
Manbhum—Topchanchi catchment area.	Demarcation	...	...	August, 1917	...	...	...
,, —Now Tetturiya Colliery...	Survey	...	...	Jan. 1918	...	...	...
Patna and Monghyr—Ganges Diara. (special.)	Stone embedding ...	...	...	Do.	...	...	...
Balasore—Nilgiri ...	Demarcation ...	...	...	Nov. 1916	...	...	...
Bhagalpur—Nepal Boundary ...	Relaying lost pillars ...	...	...	Jan. 1918	...	...	...
Cuttack, Banki Government Estate	Preparation of traverse plots.	...	...	August 1917	...	...	...
Hazaribagh, Kodarma Revision ...	Preparation of blue prints	...	...	August 1918	...	...	...
Monghyr—Jorawarpur Tamtha, etc....	Demarcation	...	...	March 1918	...	...	...
Puri—Municipality	Traverse	...	...	Do.	...	...	...
,, —Khurda Ranpur ...	Demarcation	...	...	Feb. 1918	...	...	...
Cuttack and Puri—Khurda Patia ...	Ditto	...	...	Jan. 1918	...	...	...
Purnea comparison of Thakbast maps.	Preparation of comparative maps.	...	...	June 1918	...	...	...
Sambalpur (15 villages) ...	Traverse	...	...	Jan. 1918	...	...	...
,, 16″ plots from old traverse tables for revision surveys. (Season 1916-17.)	Preparation of 16″ plots ...	...	...	July 1917	...	...	...
,, 16″ plots from old traverse tables for revision survey. (Season 1917-18.)	Ditto ditto ...	...	...	June 1918	...	...	...
,, Patna Borasamber ...	Traverse	...	...	Feb. 1918	...	...	...
,, Municipality ...	Ditto	...	...	April, 1918	...	...	...
Santhal Parganas—Barhma Jamalpur Demarcation.	Demarcation	...	...	Do. ...	...	...	...
II.—Bihar and Orissa Drawing Office.							
Imperial Standard Mapping Section.							
Bihar and Orissa	Preparation of standard sheet.	...	Sheets— O 63— 8; P 63— 5, 9, 10, 11, 12, 13, 14, 15, 16; M 64— 13, 14; D 72— 1, 3, 4, 5, 7, 12; L 72— 10; A 73— 1, 2, 5, 9, 15	...	...	...	...

XI.

together with the expenditure incurred during the year ending 30th September, 1918.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.				Rs.				
27,334	...	...	87·3†	...	...	...	...	* Includes 938 sq. miles traversed in 1907-08 and 1908-09. † Exclusive of control charges.
244								
134								
1,139								
158								
403								
103								
119								
216								
1,426								
1,558								
330								
28								
762								
216								
304								
80								
241								
190								

APPENDIX

Statement showing outturn of work of the Bihar and Orissa Drawing Office

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed, or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Provincial Drawing Section.							
	Compilation of detailed thana maps of thanas—						
Hazaribagh...	Kharagdiha	.....	40*	1915-16	9	33	7
	Giridih						
	Satgawan						
	Itkhori						
	Tandwa						
	Chatra						
	Chauparan						
Ranchi	Bishunpur	.....	37*	1914-15	7	37	*Nil*
	Ghagra						
	Lohardaga						
	Simdega						
	Gumla						
Gaya	Daudnagar	.....	19*	1917-18	9	9	10
	Arwal						
	Jahanabad						
	Rajauli						
	Nawada						
	Tikari						
	Atri						
Shahabad	Compilation of skeleton district maps.	.....	21	1913-14	1	12	9
Sambalpur	Compilation of district maps.	.....	4	1917-18	4	...	...
Bhagalpur, Purnea and Santal Parganas.	Compilation of 4" Ganges Diara maps for publication sheets:— 72 O 7 / 103, 104, 105, 106, 107, 108, 109 & 110.	.....	138	1908-09	23	126	12
	72 O 11 / 111, 112, 113 & 115 ...						
	72 O 12 / 114 & 117						
	72 O 16 / 116						
	72 O 11 & 15 / 118, 119 & 120 ...						
	72 O 12; 16 / 121, 122 & 123 ...						
	72 O 15 / 124						
	72 O 16 / 127						

XI—*continued.*

together with the expenditure incurred during the year ending 30th September, 1918.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
Rs.				Rs.				
...	...	...	...	...	...	...	...	*Approximate.
(a)6,816	...	...	...	33,282	...	...	...	*Actuals. (a) Includes Rs. 1,720, cost of reproduction.
...	...	...	...	...	...	...	...	*Approximate.
18	...	...	...	657	...	...	...	
1,964	...	...	...	16,833	...	...	...	
(b)7,307	...	...	...	41,830	...	...	..	(b) Includes Rs. 294, cost of reproduction.

APPENDIX

Statement showing outturn of the Bihar and Orissa Drawing Office together with

District.	Description of work.	Number of villages.	Estimated area to be dealt with (in square miles) or number of sheets for publication.	Year of commencement of operations.	Area surveyed (in square miles) or number of sheets under preparation.		Balance remaining to be surveyed or sheets remaining to be taken up.
					During the year under report.	Total including previous seasons.	
1	2	3	4	5	6	7	8
Province maps.—							
Champaran, Patna, Palamau, Gaya, Ranchi, Muzaffarpur, Balasore, Shahabad, Saran, Darbhanga, Monghyr, Diagrams, Sketch Maps.	Compilation of miscellaneous maps of extra departmental work.	.....	...	...	52	...	...
Saran	Reproduction of attestation copies of village maps.	.....	2,500	...	2,287	2,287	...
Cuttack (Banki)	Ditto	.....	207	...	207	207	...
Saran	Reproduction of final copies of village maps.	.....	2,816	...	2,780	2,780	36
Champaran	Ditto	.....	4,838	...	500	4,838	...
Sambalpur	Ditto ...	.....	1,857	...	1,303	1,736	121
Cuttack	Ditto ...	.....	1,046	...	195	1,033	13
Gaya	Ditto	.....	193	...	193	193	...
Ranchi	Ditto	.....	282	...	282	202	...
Shahabad	Ditto	.....	52	...	52	52	...
Muzaffarpur	Reproduction of village maps for revision purposes.	.....	3,200	...	2,580	2,580	620
Saran	Reproduction of trijunction mark maps.	.....	4	...	4	4	...
Gaya and Santal Parganas ...	Reproduction of skeleton thana maps.	.....	7	...	7	7	...
Patna, Santal Parganas, Ranchi, Hazaribagh and Gaya.	Reproduction of final thana maps.	Not known ...	...	...	34	309	...
Bhagalpur, Purnea and Santal Parganas.	Reproduction of Ganges Diara maps.	.....	138	...	22	126	12
	Reproduction of Survey and Settlement Index maps.	.....	2	...	2	2	...
Saran	Reproduction of Index Mujimilis and other miscellaneous maps.	.....	15	...	15	15	...
	Province maps of Bihar and Orissa and forms.	.....	1	...	1	1	...
Ranchi	Netarhat maps ...	.....	...	...	...	...	...
Monghyr	Municipal map ...	.....	...	...	27	27	...
	Extra Departmental work	.....	...	...	...	...	...
Bihar and Orissa Province ...	Badars	.....	...	...	...	...	...
	Map Records	.....	...	...	...	...	...

XI—*concluded.*

the expenditure incurred during the year ending 30th September, 1918.

Expenditure incurred during the year.				Total expenditure from inception of the operations to end of the year under report.				Remarks.
Actual cost.	Approximate share of control.	Total.	Cost per square mile.	Actual cost.	Approximate share of control.	Total.	Cost rate per square mile.	
9	10	11	12	13	14	15	16	17
	Rs.			Rs.				
...	..		...	...				
1,175								
114	...	...	...	37,214				
26,135								
8,719								
1,508								
179	...	...	...	8,18,146				
420								
141								
66								
892	...	...	...	892				
17	...	...	...	17,168				
61	...	...	...	1,009				
(*a*) ...	...	...	...	...	...	...	...	(*a*) Cost of reproduction is included with compilation.
(*b*)...	...	...	...	...	...	...	...	(*b*) Ditto.
134	...	...	...	2,729				
47	...	...	...	361				
114	...	...	...	114				
4	...	...	...	4				
16	...	...	...	16				
388	...	...	...	35,635				
1,381	...	...	...	56,774				
3,987	...	...	...	83,668				

APPENDIX XII.

Statement showing cost per copy of different classes of maps reproduced in the Bihar and Orissa Drawing Office during the Survey year 1917-18.

Class of work.	Number of copies printed.	Direct charge with stationery.	Cost per copy.	Direct charge with share of General Section and stationery.	Cost per copy.	Direct charge with share of General Section and share of control and stationery.	Cost per copy.
1	2	3	4	5	6	7	8
		Rs.	Re. a. p.	Rs.	Re. a. p.	Rs.	Re. a. p.
1. Preliminary reproduction of maps for attestation purposes.	6,689	1,125	0 2 8	1,523	0 3 8	1,576	0 3 9
2. Final printing of village maps including two blue prints of each sheet.	388,866	37,601	0 1 7	51,355	0 2 1	53,152	0 2 2
3. Final thana maps	2,380	1,251	0 8 5	1,720	0 11 7	1,780	0 12 0
4. Skeleton thana maps ...	700	61	0 1 5	85	0 1 11	88	0 2 0
5. Ganges Diara maps ...	668	236	0 5 8	320	0 7 8	331	0 7 11
6. Trijunction marks maps ...	124	13	0 1 8	21	0 2 8	22	0 2 10

B. & O. G. P. (D. L. R.) No. 23–289+1–9-1-1919—R. B.

No. 17-182-3.

FROM

J. A. SWEENEY, ESQ., I.C.S.,
OFFG. SECRETARY TO THE BOARD OF REVENUE,
BIHAR AND ORISSA,

TO

THE SECRETARY TO THE GOVERNMENT OF BIHAR AND ORISSA,
REVENUE DEPARTMENT.

Dated Bankipur, the 9th January 1919.

SIR,

I am directed to forward the Annual Report on the Survey and Settlement operations under the control of the Director of Land Records and Surveys, Bihar and Orissa, for the year ending the 30th September 1918, by Mr. P. W. Murphy, I.C.S., who was in charge of the combined Survey and Settlement Departments throughout the year.

2. The traverse programme comprised 732 square miles in Manbhum and 13 miscellaneous surveys also. The increase in cost rates in the Drawing Office is attributed to the rise in prices of paper, cloth, chemicals and stationery, the purchase of zinc plates and the overhauling of the electric press. T settlement programme comprised original operations in Palamau and revision in Champaran and Saran. The operations in the former district were practically complete at the end of the year and the resettlement of the Banki Government estate was commenced. The general programme of the Department has been unavoidably thrown back owing to war conditions but it should not now be necessary to extend the postponements described in paragraph 4 of the Director's report. It is desirable that the question of resuming and organizing the staff for the North Bihar revision should now be taken in hand as considerable difficulty may be encountered in recruiting again the very experienced staff that has been and is being discharged.

3. The Board has received the final report on the Barahabhum-Patkum settlement and has forwarded it to Government with its comments, but still awaits the reports on Gaya and Shahabad. It is desirable that their submission should now be no longer deferred.

4. *Gaya.*—The case noted in paragraph 17 of the report is of considerable interest. The decision of the Special Judge revising on appeal a decision which the Settlement Officer had refused to revise under section 108A would appear to be open to criticism from two distinct points of view. In the first place the Legal Remembrancer on a reference gave the opinion that under the law there is no appeal against the order of the Settlement Officer refusing to revise, and in the second place it is clear from the Act itself and is a matter of ordinary common sense that post publication suits and applications are for the purpose of making a record correct with reference to the time when it is published and not of maintaining the record up to the date for the convenience of parties in respect of transactions that took place subsequent to the publication.

5. *Palamau.*—All the important questions relating to this settlement have now been decided. The Settlement Officer has submitted an elaborate and interesting report on the *kamiauti* system which is at present being considered by the Board. It will be necessary to consider the relation between this system and the general economic position of the tenantry in the district. Paragraph 32 gives some examples of illegal enhancements which unfortunately are too common. The local officers will be asked to take action for the protection of the raiyats against the forced enhancements made after the settlement proceedings, and it would seem that methodical and strenuous action is required to enforce the granting of rent receipts, and to prevent illegal dispossession.

6. *Saran.*—A satisfactory feature of the operations is the steadily decreasing percentage of disputes. The experiment of appointing panchayats in each village and of taking up judicially only such disputes as they could not settle has been a marked success and this system might with advantage be developed.

The increase in the value of land in the Siwan Subdivision since the last settlement is very remarkable, and the robust independence of the tenantry is in marked contrast to the misery and subjection of the cultivating classes in Palamau. It is pleasing to notice that the old record is a living force in Saran and has completely emancipated the raiyats. The very high rents paid in certain areas are a tribute not so much to the fertility of the soil as to the enterprise of the cultivators.

The difficulty of framing a record-of-rights after partition proceedings has been encountered both in Saran and in Palamau, but it does not appear to arise in connection with the more recent *batwara* proceedings and in fact cannot arise if the law and existing rules are followed.

7. *Champaran.*—It will be necessary in connection with the amendment of the Bengal Tenancy Act to define more precisely the conditions of enhancement under section 30(*b*). It is very difficult to accept as an equitable or even reasonable interpretation of the law the recent appellate decision that the cash rent of an occupancy raiyat can be enhanced on the ground of a rise in prices calculated by comparing prices during the currency of the present rent with prices that prevailed before the tenancy originated.

The origin of the existing law on the subject will be found in section 22 of the Landlord and Tenant Bill drafted by the Rent Commissioners (paragraph 52, page 28 and page 126, report of the Rent Law Commission, Vol. I). The fourth ground of enhancement was stated to be "that the prices of produce in the locality or at the usual markets as compared with similar prices *at the time when the rent was fixed or at any subsequent time* have increased otherwise than by the agency or at the expense of the raiyat and from causes not merely temporary or casual."

The present decision would seem to be directly counter to this sound proposition.

The commutation of *hunda* rents will probably be the subject of judicial proceedings before the Board and comment is therefore withheld.

Good progress was made with the proceedings under the Champaran Agrarian Act, but the attitude and conduct of the raiyats are very disappointing. It has recently been necessary to extend the certificate procedure to certain zamindari concerns in the district and it is hoped that rents will now be paid without objection.

8. The Board is glad to notice an increase in the percentage of check of survey and record writing in Sambalpur though the total outturn is less than in the last year.

9. The percentage of mutations to the total number of tenancies shows an increase from last year in Government estates but a decrease in Wards estates. The percentages in both are still very unsatisfactory.

10. The Board desires to invite the notice of Government to the names of the officers commended in paragraphs 79 and 97 of the report, and especially to the sound and efficient work done by Mr. Sweeney in Champaran, and to Mr. Bridge's work in Palamau in continuing to deal with the difficult problems that have arisen in regard to that settlement. Both these officers deserve special credit. Messrs. Toplis and Tuckey also worked with efficiency and success in their respective circles.

The Board's acknowledgments are also due to Mr. Murphy for his efficient administration of the combined departments.

I have the honour to be,

SIR,

Your most obedient Servant,

J. A. SWEENEY,

Offg. Secretary.

B. & O. G. P. (Bd. of Rev.) No. 133—325+1—11-1-1919—G. N. K.

No. $\frac{845}{S-14}$ R.

GOVERNMENT OF BIHAR AND ORISSA.

REVENUE DEPARTMENT.

RESOLUTION.

Ranchi, the 10th February 1919.

READ—

The Survey and Settlement Report for the year ending the 30th September 1918 and the remarks recorded on it by the Board of Revenue.

1. Mr. P. W. Murphy, I.C.S., was in charge of the combined Survey and Settlement Departments throughout the year.

2. Traverse work was continued in, and mainly confined to, the Manbhum district, where an area of 732 square miles was completed. The cost rate excluding the share of control was reduced from Rs. 39·6 to Rs. 37·3, per square mile. Thirteen miscellaneous petty surveys were undertaken and completed. Owing to the increased price of materials higher cost rates in the Drawing office were unavoidable.

3. In Gaya, operations were wound up and records made over to the Collector. The final report is now passing through the press and the Lieutenant-Governor in Council awaits it with much interest. He has more than once noticed a good deal of procrastination in the preparation of such reports, and takes this opportunity to emphasize the importance of preparing and publishing the report as speedily as possible after the conclusion of the settlement to which it relates.

4. The programme of the year for the original operations in the Palamau district consisted of the attestation and draft publication of 969 square miles, disposal of objections under sections 83 (1) and 111 (6) of the Chota Nagpur Tenancy Act, settlement recess work of the attested area, final publication of the records of 1,142 square miles attested in 1916-17, and recovery of costs in 1,419 square miles. Attestation work was again difficult: the prevalence of illegal enhancements, failure to grant rent receipts, frequent dispossessions, and disputes between petty co-sharer landlords delayed the disposal of work, and this part of the programme was not entirely completed. To ease the situation the Lieutenant-Governor in Council directed the compulsory settlement of fair rents in areas where illegal enhancements of rents had been disallowed on a large scale; and it is with very real concern that he now learns that systematic attempts have already been made to circumvent the settlement record. For example, numerous documents have recently been registered in which tenants purport to bind themselves to pay higher rents than those which have been recorded by the Settlement Department. Any attempt to collect rents on the basis of such documents is punishable under section 63 of the Chota Nagpur Tenancy Act, but the greatest vigilance on the part of local officers will be necessary for many years after the settlement proceedings are concluded to ensure that the tenancy law shall be observed, and the settlement record respected throughout the district. The Settlement Officer has made a thorough examination of the *kamiauti* system, which occupies a regrettable prominence in the social economics of Palamau. This matter is already receiving the attention of Government, but it is one of great difficulty and hasty measures might do more harm than good; it is however essential that an effective remedy should be found.

5. In North Bihar, the Champaran programme consisted of case work under sections 40, 105 and 106 of the Bengal Tenancy Act, and recovery of settlement costs ; it also included the revision of rents under the Champaran Agrarian Act, 1918. The rents of 35,605 tenancies were settled under section 4 of that Act; but a large number of raiyats took up the position that they were not parties to the compromise to which the Act gives effect, and are said to have openly repudiated their representative on the Enquiry Committee on whose assurances landlords had agreed to the special legislation which effected a proportionate reduction of the *sharabeshi* enhancement. In pursuance of this contention the withholding of rent became so general that it has since been necessary to permit the employment of the certificate procedure for its recovery. In view of the difference of procedure adopted by the Revenue Officers and the Special Judge in connexion with the enhancement of rents, the question of amplifying section 30(*b*) or section 37 of the Bengal Tenancy Act so as to preclude the enhancement of rents which have been fixed by contract within 15 years will be considered in connexion with the general amendment of the Act which is now under consideration.

6. The absence of serious agrarian disputes, the independence of the tenants, their knowledge of their rights, and the generally amicable relations between themselves and their landlords all contributed to the smoothness with which revisional operations proceeded in Saran. The programme comprised attestation and draft publication of 807 square miles in the Siwan Subdivision, which owing to the minute subdivision of raiyati holdings comprised as many as 2,056,644 plots, disposal of objections under section 103A, Bengal Tenancy Act, final publication of the records of villages in the Gopalganj subdivision, case work under sections 105, 106, and 40 of the Bengal Tenancy Act, recess, and the preparation of cess revaluation rolls for two subdivisions proceeding simultaneously with settlement work under the procedure defined in Chapter IIA of the Cess Act. The most prominent features of the area under attestation are the heavy pressure of population on the soil and the enormous increase in the value of land since the last settlement. The great value of a record-of-rights to an intelligent population has been amply demonstrated in the case of Saran, where a comparison of the old and new records discloses a very high degree of stability in the agrarian situation.

7. Good progress was made in the re-settlement of the Banki Government estate, the total area of which is 114 square miles. Records were completed of the re-settlement of the Kolhan Government estate in the district of Singhbhum.

8. The preparation of new maps and records by local agency in the district of Sambalpur continued to be carried out in a satisfactory manner, though the outturn for the year was slightly reduced.

9. The thanks of the Lieutenant-Governor in Council are due to Mr. Murphy for his interesting report. Mr. Tanner left the Gaya Settlement in February last after a successful tenure of a very onerous post. Mr. Sweeney also ended his settlement service after eight years of uniformly excellent work, especially in Champaran where he had exceptional difficulties to contend with. Mr. Bridge as Settlement Officer of Chota Nagpur has carried on a troublesome task with great care and thoroughness. To these and to the other officers commended in the report the Lieutenant-Governor in Council tenders his cordial acknowledgments.

ORDER.—Ordered that a copy of the foregoing Resolution be published in the *Bihar and Orissa Gazette*, and that a copy of it, together with copies of the Report and of the Board's remarks thereon, be submitted to the Government of India.

By order of the Lieutenant-Governor in Council,

J. A. HUBBACK,

Secretary to the Government of Bihar and Orissa.

MEMO. No. $\frac{846\text{-}47}{S-14}$ R.

Ranchi, the 10*th February* 1919.

COPY, with a copy of the Report, forwarded to the Surveyor-Genreal of India Appointment Department for information (with special reference to paragraph 9 of the Resolution).

By order of the Lieutenant-Governor in Council,

W. H. LEWIS,

Under-Secretary to the Government of Bihar and Orissa.

MEMO. No. $\frac{848}{S-14}$ R.

Ranchi, the 10*th February* 1919.

COPY forwarded to the Secretary to the Board of Revenue, Bihar and Orissa, for the information of the Board.

By order of the Lieutenant-Governor in Council,

W. H. LEWIS,

Under-Secretary to the Government of Bihar and Orissa.

B. & O. G. P. (Rev.) No. 63—285+7—13-2-1919—J. C. B.

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on 01 February, 2020